Checklist of the Mosses of Ontario

Rhodobryum ontariense

Checklist of the Mosses of Ontario

Robert R. Ireland and Roy F. Cain

National Museum of Natural Sciences
Publications in Botany, No. 5

Published by the
National Museums of Canada

Staff editor
Frances Smith

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National Museum of Natural Sciences
National Museums of Canada
Ottawa, Canada
Third quarter 1975

Catalogue No. NM95–9/5

P0987654321
Y798765

Printed in Canada

Musée national des Sciences naturelles
Publications de Botanique, nº 5

Publié par les
Musées nationaux du Canada

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Musée national des Sciences naturelles
Musées nationaux du Canada
Ottawa, Canada
Troisième trimestre 1975

Nº de catalogue NM95–9/5

T0987654321
A798765

Imprimé au Canada

To the memory of Claire Williams

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Summary

This first checklist of Ontario mosses records 430 species and 34 varieties for the province. The list is based on verified herbarium specimens, and it summarizes the distribution of mosses within Ontario on a county or district basis. A list of mosses reported for the province, but not confirmed from herbarium specimens, and a list of synonyms and excluded taxa are also included. A map of Ontario, which appears on page 12, shows the counties, districts, and natural-vegetation regions within the province.

Résumé

Cette première liste de contrôle des mousses de l'Ontario recense 430 espèces et 34 variétés sur le territoire de la province. La liste se fonde sur des spécimens d'herbier authentifiés et schématise la distribution de ces plantes par comté et par district sur l'ensemble du sol ontarien. L'ouvrage établit également une liste des espèces qu'on dit avoir observées dans la province, mais dont il n'existe aucun spécimen d'herbier, ainsi qu'une liste de synonymes et de taxa exclus. La carte de la province, paraissant sur la page 12, indique les comtés, les districts et les régions naturelles de végétation qu'on trouve en Ontario.

Biographical Notes

Robert R. Ireland

Robert R. Ireland graduated from the University of Kansas with a B.A. in 1956 and an M.A. in botany in 1957. After graduation he worked at the Smithsonian Institution as a herbarium aid in the Cryptogamic Division, and a year later became an assistant curator of bryophytes. In the summer of 1961 he received a National Science Foundation grant to study under Dr. A. J. Sharp at the University of Michigan Biological Station. The following year he became a research assistant to Dr. Elva Lawton at the University of Washington, where he assisted her with the *Moss Flora of the Pacific Northwest*, and received his Ph.D. in botany in 1966. He has since been curator of bryophytes at the National Museum of Natural Sciences, Ottawa. His main interests are moss systematics and phytogeography.

Roy F. Cain

Roy F. Cain obtained his academic training from the University of Toronto. He received his B.A. in 1930, his M.A. in 1931, and his Ph.D. in 1933. Since then he has been on the staff of the Department of Botany, University of Toronto. At present he is professor and curator of the Cryptogamic Herbarium. He is associate chairman of the Department of Botany, and was acting chairman in 1959–61. His major interest has been the study of coprophilous ascomycetes. He developed an early interest in the bryophytes, and has collected extensively throughout Ontario. Dr. Cain has made collecting trips to the Yukon, the Northwest Territories, and all the Canadian provinces, as well as most of the states in the continental United States, and in Mexico, Venezuela, England, Switzerland, Kenya, Uganda, Tanzania, and Zaïre.

Acknowledgements

We are grateful to the curators and staffs of the following institutions for allowing the senior author to study their collections and use their facilities: Farlow Herbarium (G. Sayre); New York Botanical Garden (C. T. Rogerson and G. L. Smith); and Smithsonian Institution (H. Robinson). We also wish to thank a number of individuals who have aided in the completion of this checklist: F. S. Cook, A. Crowder, H. A. Crum, M. I. Moore, and W. G. Stewart. The colour illustration of *Rhodobryum ontariense* was done by Anne Hanes and Ellen Ireland.

Map of Ontario showing counties, districts, and natural-vegetation regions

Introduction

This is the first checklist of the mosses of Ontario. It not only summarizes our present knowledge of Ontario mosses, but also reveals the extent of collecting in the province. No pretence is made as to the completeness of the list, for much is still to be learned about the bryoflora of this large province. It is our hope that this checklist will stimulate more collecting within the province, especially in regions where little collecting has been done.

Ontario has a rather large and diverse moss flora, as one might expect from its enormous size and the existence of four natural-vegetation regions within the province (see Map). The present total of 430 species and 34 varieties of mosses should be increased as more herbarium specimens are examined and more collecting is done.

Differences in climatic, edaphic, biotic, and past geological factors in many parts of the province have been important in determining the moss flora, just as these same factors have influenced other organisms. Therefore, the mosses of the four natural-vegetation regions of Ontario—Boreal Forest, Deciduous (Carolinian) Forest, Great Lakes–St. Lawrence Forest, and Tundra—are just as characteristic of these regions as are the other plants and animals. Bryological exploration in any of these four regions should yield a number of new records. A brief account of the vascular plants and fauna of these natural-vegetation regions is given by Falls and Soper (1964) and by Scoggan (1966).

Five mosses are included in the checklist on the basis of single records. However, their presence in Ontario is doubtful and is probably the result of labelling errors. *Atrichum selwynii* Aust., *Drepanocladus uncinatus* var. *symmetricus* (Ren. & Card.) Grout, *Hypnum pallescens* var. *protuberans* (Brid.) Aust., *Kiaeria blyttii* (Schimp.) Broth., and *Tetraphis geniculata* Girg. *ex* Milde are included in the list from collections by John Macoun, but all are out of their known range. One other collection, *Dicranum groenlandicum* Brid., by Macoun from Carleton County, also seems to be an error, but its existence in Ontario is assured by a record from Kenora District.

Two of the species in the present list are endemic in Ontario, namely *Neomacounia nitida* (Lindb.) Irel. and *Tortula cainii* Crum & Anders. Both species are known from only a few localities in southern Ontario, but there is no reason to suspect that they will not be found elsewhere.

All mosses in the checklist are based on herbarium specimens examined and verified by the senior author. The entire bryophyte herbaria of the National Museums of Canada (CANM), the University of Toronto (TRTC), the U.S. National Herbarium (US), the New York Botanical Garden (NY), as well as the general bryophyte herbarium of Farlow (FH) have been searched for Ontario mosses. The list is based on single records from each county or district within the province. The mosses listed without a designated locality are known for the province from verified herbarium specimens, but they had insufficient locality data to place them in any county or district. The label data, as well as the herbarium where each specimen was seen, have been recorded and are kept on file in the National Herbarium of Canada (CANM) in Ottawa. Anyone may obtain information regarding these records by writing to the Curator of Bryophytes, National Museum of Natural Sciences, National Museums of Canada, Ottawa.

There has been no systematic attempt to confirm published records because of the high percentage of error existing in their identification. Taxonomic and nomenclatural changes have only added to the confusion, and so the bryologist must examine the specimens. Reported tropical mosses in Ontario, such as *Neckeropsis disticha* (Hedw.) Kindb. and *Papillaria nigrescens* (Hedw.) Jaeg. & Sauerb., justify this decision. Furthermore, the time and expense involved in tracking down literature records are often excessive in relation to the results that are obtainable. There are certain exceptions, however, especially in the case of a single record known from the province. It is hoped that specimens of any mosses not on the list will be sent to Ottawa for

verification, and a voucher specimen deposited in either the National Herbarium of Canada (CANM) or the University of Toronto (TRTC). The majority of Ontario records are now contained in these two institutions, and for the convenience of future researchers it is extremely desirable to keep the specimens within these two centres.

The nomenclature is basically that of Crum, Steere, and Anderson (1973), who generally followed Brotherus (1924–25), or of van der Wijk, Margadant, and Florschütz (1959–69), with recent additions by Ando (1973), Ireland (1974), Isoviita (1966), Koponen (1968, 1971, 1973), and Iwatsuki and Koponen (1972).

Principal Collectors of Ontario Mosses

As it would take considerable space to list everyone who has collected mosses in Ontario, only those making numerous collections or those with the only record for a particular species or variety in Ontario are listed.

Ahti, T.
Anderson, L. E.
Bailey, J. A.
Baldwin, W. K. W.
Barclay, P.
Bell, R.
Bentley, P. A.
Billings, B., Jr.
Brassard, G. R.
Brodo, I. M.
Brown, H. H.
Cain, R. F.
Catling, P. M.
Cook, F. S.
Crum, H. A.
Davidson, C. E.
(also as Williams, C. E.)
Davies, B. W.
Dearness, J.
Drummond, T.
Dutchak, D. M.
Fowler, J.
Garton, C. E.
Gillett, J. M.
Grassl, C. O.
Hainault, R.
Hand, C. H.
Hermann, F. J.
Hosie, R. C.
Ireland, R. R.
James, L. E.
Jaquith, B.
Jaquith, L. E.
Jeglum, J. K.
Judd, W. W.
Kershaw, K. A.
Kuwahara, Y.
Larsen, J. A.
Losee, S. T. B.
Macoun, J.
Maycock, P. F.
Millman, T.
Moore, M. I.
Moxley, E. A.
Orloci, L.
Phipps, J. B.
Roy, J. D.
Schofield, W. B.
Sharp, A. J.
Shea, G.
Soper, J. H.
Spreadborough, W.
Stewart, W. G.
Walker, T. L.
Wetmore, C. M.
White, J.
Whitehouse, E.
Williams, C. E.
Williams, H.
Wilson, R. A.
Wood, A. A.

Systematic Arrangement of Ontario Mosses

Basically the system of Crum, Steere, and Anderson (1973), which is based on Brotherus (1924–25)

Class Musci

Subclass SPHAGNIDAE
Order SPHAGNALES
1. Family **Sphagnaceae**
   Sphagnum

Subclass ANDREAEIDAE
Order ANDREAEALES
2. Family **Andreaeaceae**
   Andreaea

Subclass BRYIDAE
Order FISSIDENTALES
3. Family **Fissidentaceae**
   Fissidens

Order DICRANALES
4. Family **Ditrichaceae**
   Pleuridium
   Ditrichum
   Saelania
   Ceratodon
   Distichium

5. Family **Seligeriaceae**
   Seligeria
   Blindia

6. Family **Dicranaceae**
   Bruchia
   Trematodon
   Dicranella
   Paraleucobryum
   Rhabdoweisia
   Cynodontium
   Dichodontium
   Dicranoweisia
   Oncophorus
   Kiaeria
   Dicranum

7. Family **Leucobryaceae**
   Leucobryum

Order POTTIALES
8. Family **Encalyptaceae**
   Encalypta

9. Family **Pottiaceae**
   Astomum
   Weissia
   Gymnostomum
   Gyroweisia
   Eucladium
   Trichostomum
   Tortella
   Hyophila
   Didymodon
   Bryoerythrophyllum
   Barbula
   Acaulon
   Phascum
   Pottia
   Pterygoneurum
   Desmatodon
   Aloina
   Tortula

Order GRIMMIALES
10. Family **Grimmiaceae**
    Grimmia
    Rhacomitrium

Order FUNARIALES
11. Family **Ephemeraceae**
    Ephemerum

12. Family **Funariaceae**
    Physcomitrella
    Aphanorrhegma
    Physcomitrium
    Funaria

13. Family **Splachnaceae**
    Tetraplodon
    Splachnum

Order SCHISTOSTEGALES
14. Family **Schistostegaceae**
    Schistostega

Order EUBRYALES
15. Family **Bryaceae**
    Mielichhoferia
    Pohlia
    Leptobryum
    Bryum
    Rhodobryum

16. Family **Mniaceae**
Mnium
Cinclidium
Rhizomnium
Plagiomnium
Pseudobryum

17. Family **Aulacomniaceae**
Aulacomnium

18. Family **Meesiaceae**
Paludella
Amblyodon
Meesia

19. Family **Catoscopiaceae**
Catoscopium

20. Family **Bartramiaceae**
Plagiopus
Bartramia
Philonotis

21. Family **Timmiaceae**
Timmia

Order ISOBRYALES

22. Family **Ptychomitriaceae**
Ptychomitrium

23. Family **Orthotrichaceae**
Zygodon
Amphidium
Orthotrichum
Ulota
Drummondia

24. Family **Fontinalaceae**
Fontinalis
Dichelyma

25. Family **Climaciaceae**
Climacium

26. Family **Hedwigiaceae**
Hedwigia

27. Family **Cryphaeaceae**
Forsstroemia

28. Family **Leucodontaceae**
Leucodon

29. Family **Neckeraceae**
Neckera
Neomacounia
Homalia
Thamnobryum

Order HYPNOBRYALES

30. Family **Theliaceae**
Thelia
Myurella

31. Family **Fabroniaceae**
Anacamptodon
Myrinia

32. Family **Leskeaceae**
Lindbergia
Leskea
Leskeella
Pseudoleskeella
Pterigynandrum

33. Family **Thuidiaceae**
Heterocladium
Haplohymenium
Anomodon
Haplocladium
Rauiella
Abietinella
Thuidium
Helodium

34. Family **Amblystegiaceae**
Cratoneuron
Campylium
Leptodictyum
Hygroamblystegium
Sciaromium
Amblystegium
Platydictya
Drepanocladus
Hygrohypnum
Calliergon
Calliergonella
Scorpidium

35. Family **Brachytheciaceae**
Tomenthypnum
Isothecium
Brachythecium
Bryhnia
Cirriphyllum
Bryoandersonia
Rhynchostegium
Rhynchostegiella
Eurhynchium
Stokesiella

36. Family **Entodontaceae**
Orthothecium
Entodon
Pleurozium

37. Family **Plagiotheciaceae**
Plagiothecium

38. Family **Sematophyllaceae**
Brotherella

39. Family **Hypnaceae**
Platygyrium
Pylaisiella
Homomallium
Hypnum
Callicladium
Isopterygiopsis
Isopterygium
Taxiphyllum
Herzogiella
Ctenidium
Ptilium

40. Family **Rhytidiaceae**
Rhytidium
Rhytidiadelphus

41. Family **Hylocomiaceae**
Hylocomium

Order BUXBAUMIALES
42. Family **Buxbaumiaceae**
Buxbaumia

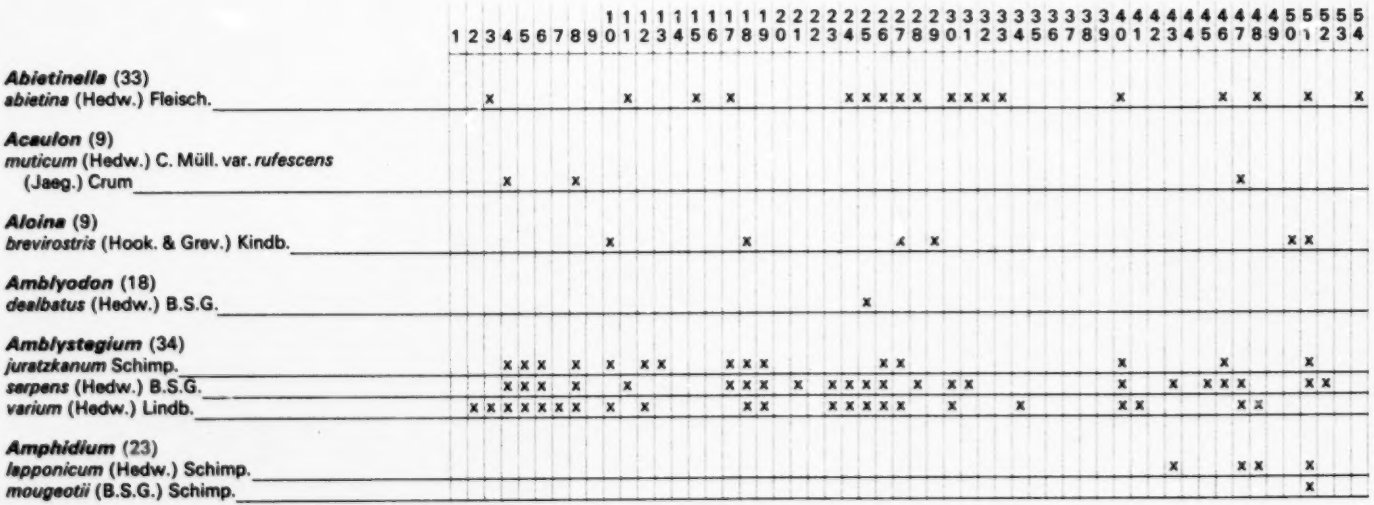
43. Family **Diphysciaceae**
Diphyscium

Order TETRAPHIDALES
44. Family **Tetraphidaceae**
Tetradontium
Tetraphis

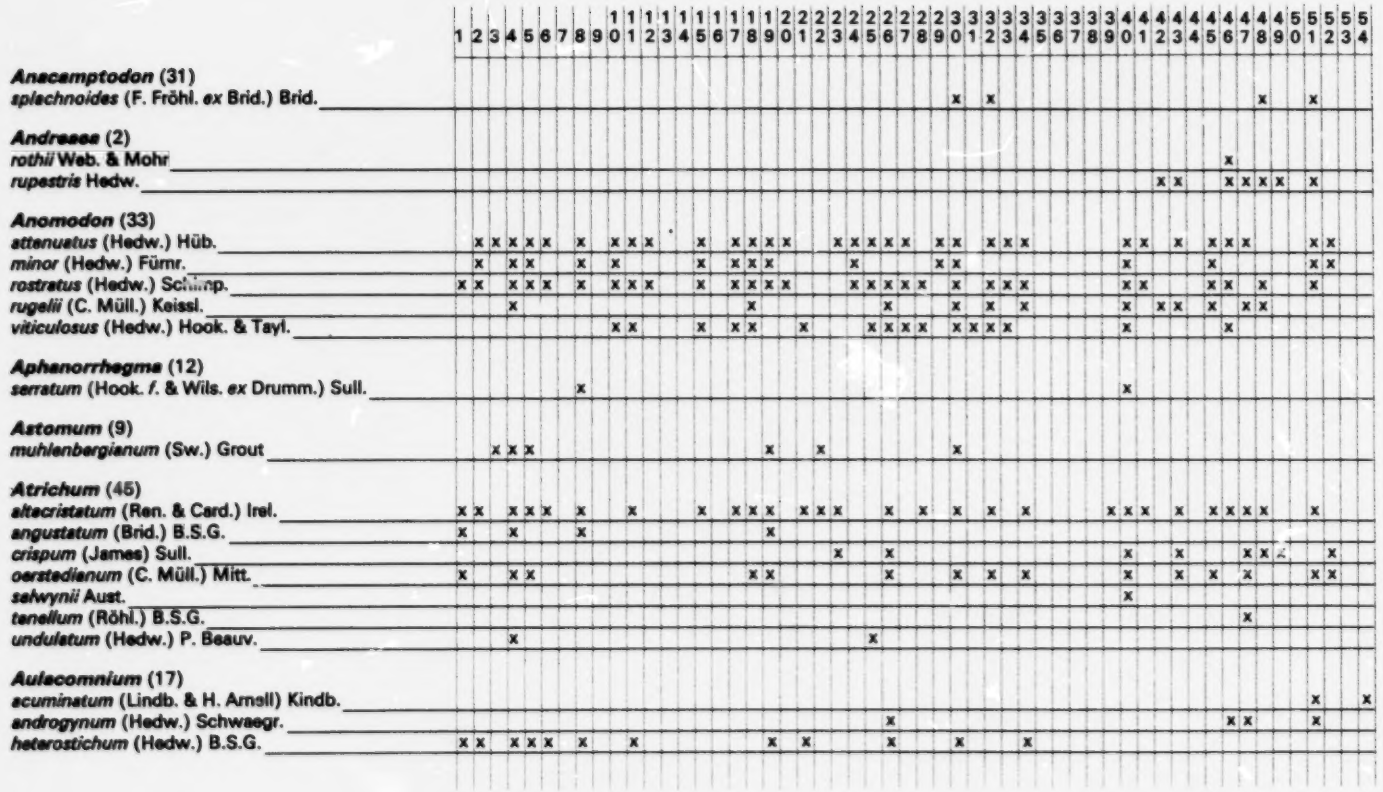
Order POLYTRICHALES
45. Family **Polytrichaceae**
Atrichum
Pogonatum
Polytrichum

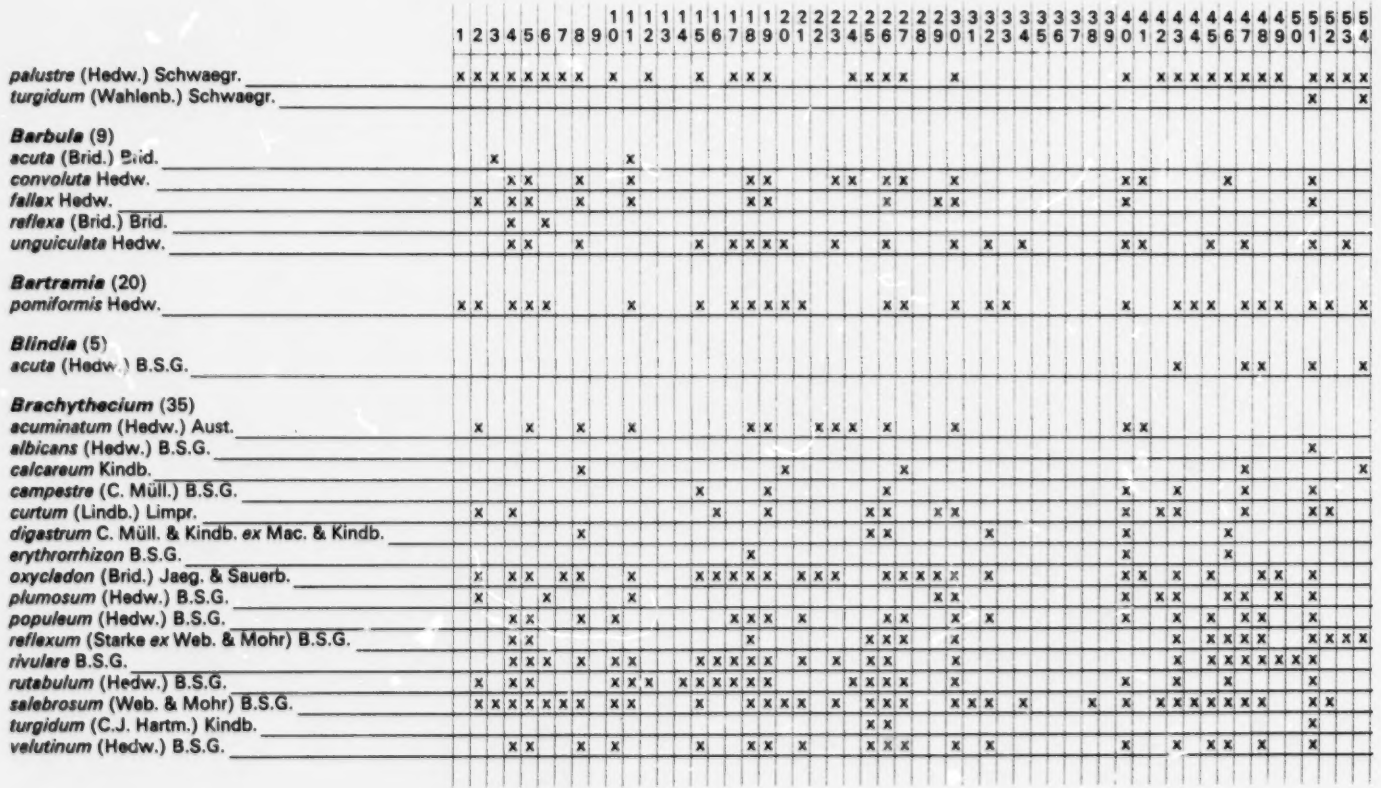
Ontario Counties and Districts

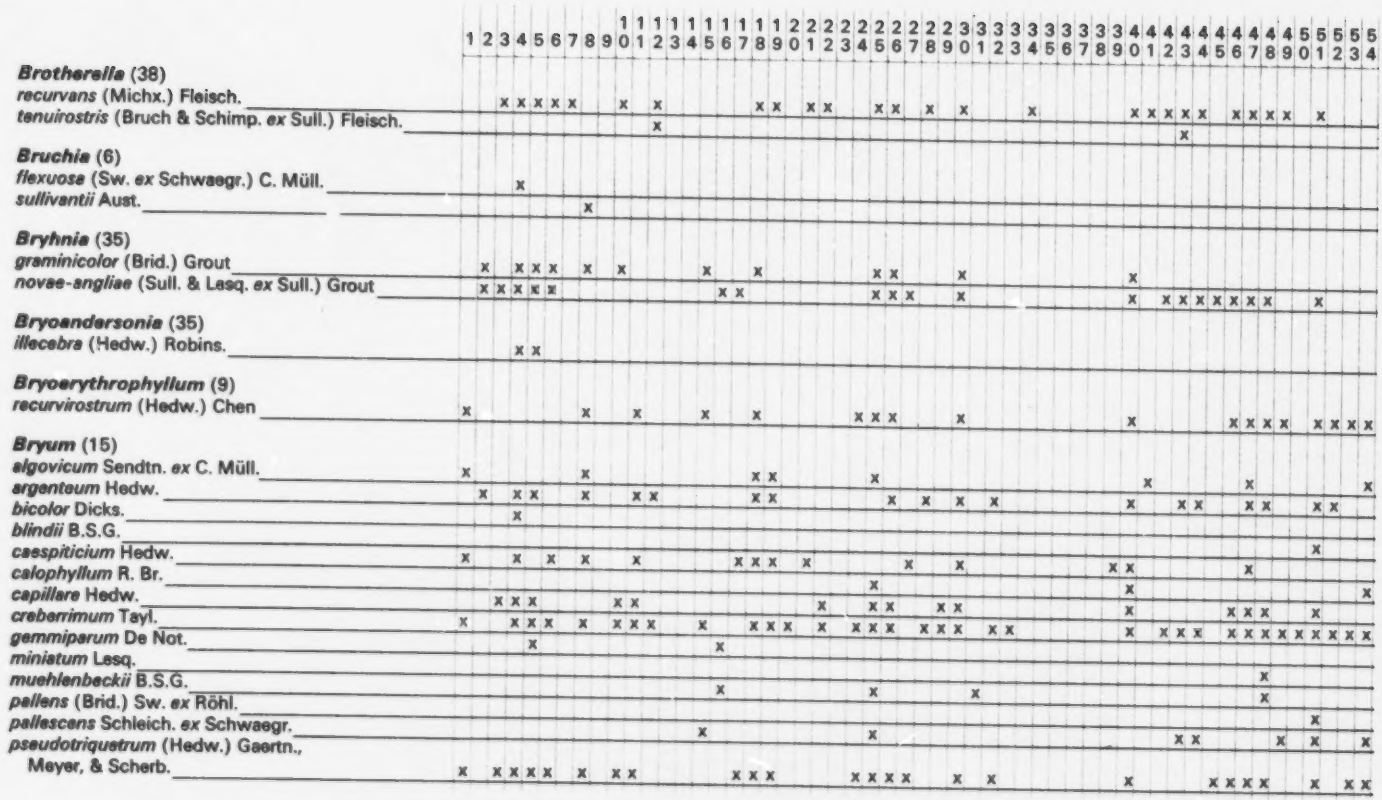
48 Algoma Dist.
8 Brant Co.
25 Bruce Co.
40 Carleton Co.
53 Cochrane Dist.
20 Dufferin Co.
35 Dundas Co.
22 Durham Co.
4 Elgin Co.
1 Essex Co.
32 Frontenac Co.
37 Glengarry Co.
34 Grenville Co.
26 Grey Co.
9 Haldimand Co.
42 Haliburton Co.
15 Halton Co.
30 Hastings Co.
16 Huron Co.
54 Kenora Dist.
2 Kent Co.
3 Lambton Co.
41 Lanark Co.
33 Leeds Co.
31 Lennox and Addington Co.
11 Lincoln Co.
46 Manitoulin Dist.
5 Middlesex Co.
43 Muskoka Dist.
47 Nipissing Dist.
6 Norfolk Co.
23 Northumberland Co.
21 Ontario Co.
7 Oxford Co.
44 Parry Sound Dist.
18 Peel Co.
14 Perth Co.
29 Peterborough Co.
38 Prescott Co.
24 Prince Edward Co.
52 Rainy River Dist.
45 Renfrew Co.
39 Russell Co.
27 Simcoe Co.
36 Stormont Co.
49 Sudbury Dist.
51 Thunder Bay Dist.
50 Timiskaming Dist.
28 Victoria Co.
13 Waterloo Co.
10 Welland Co.
17 Wellington Co.
12 Wentworth Co.
19 York Co.

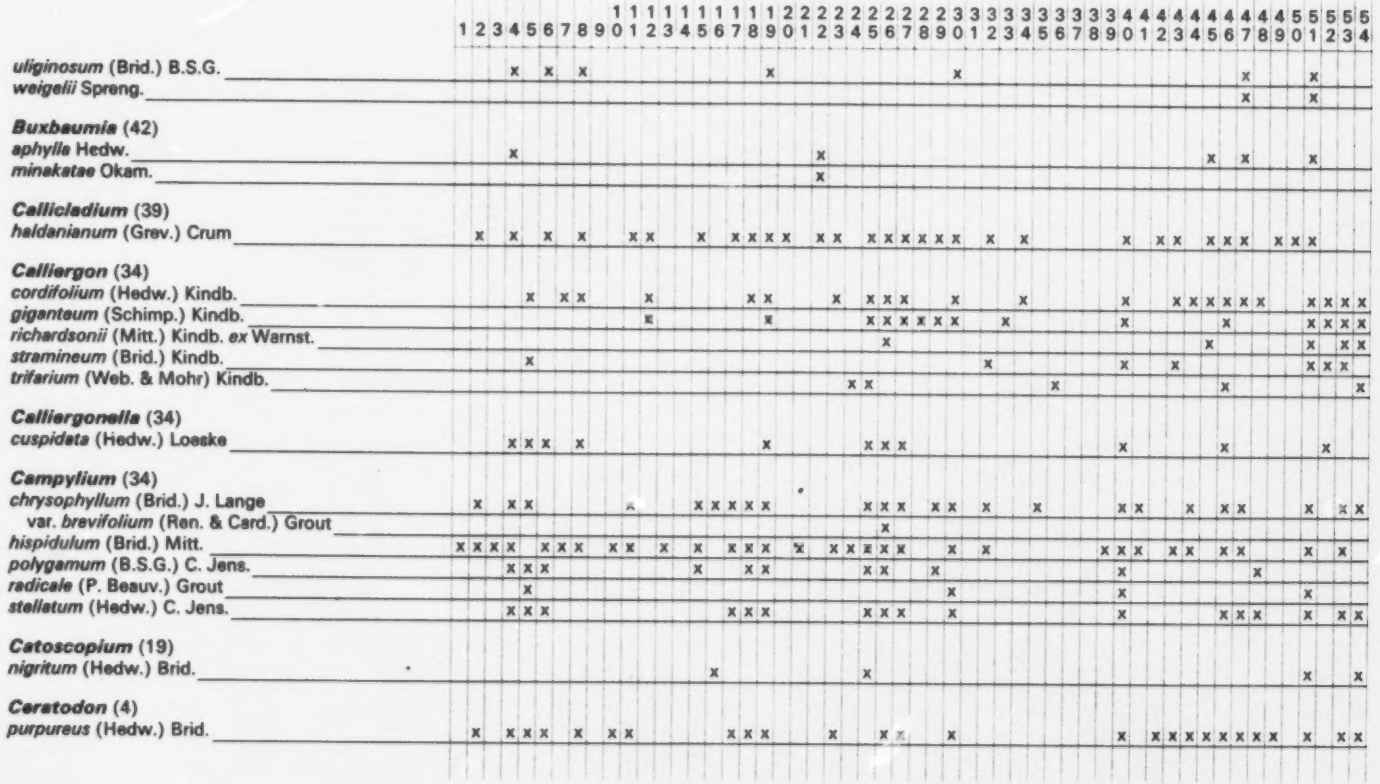

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
Abietinella (33)
abietina (Hedw.) Fleisch.
Acaulon (9)
muticum (Hedw.) C. Müll. var. rufescens (Jaeg.) Crum
Aloina (9)
brevirostris (Hook. & Grev.) Kindb.
Amblyodon (18)
dealbatus (Hedw.) B.S.G.
Amblystegium (34)
juratzkanum Schimp.
serpens (Hedw.) B.S.G.
varium (Hedw.) Lindb.
Amphidium (23)
lapponicum (Hedw.) Schimp.
mougeotii (B.S.G.) Schimp.

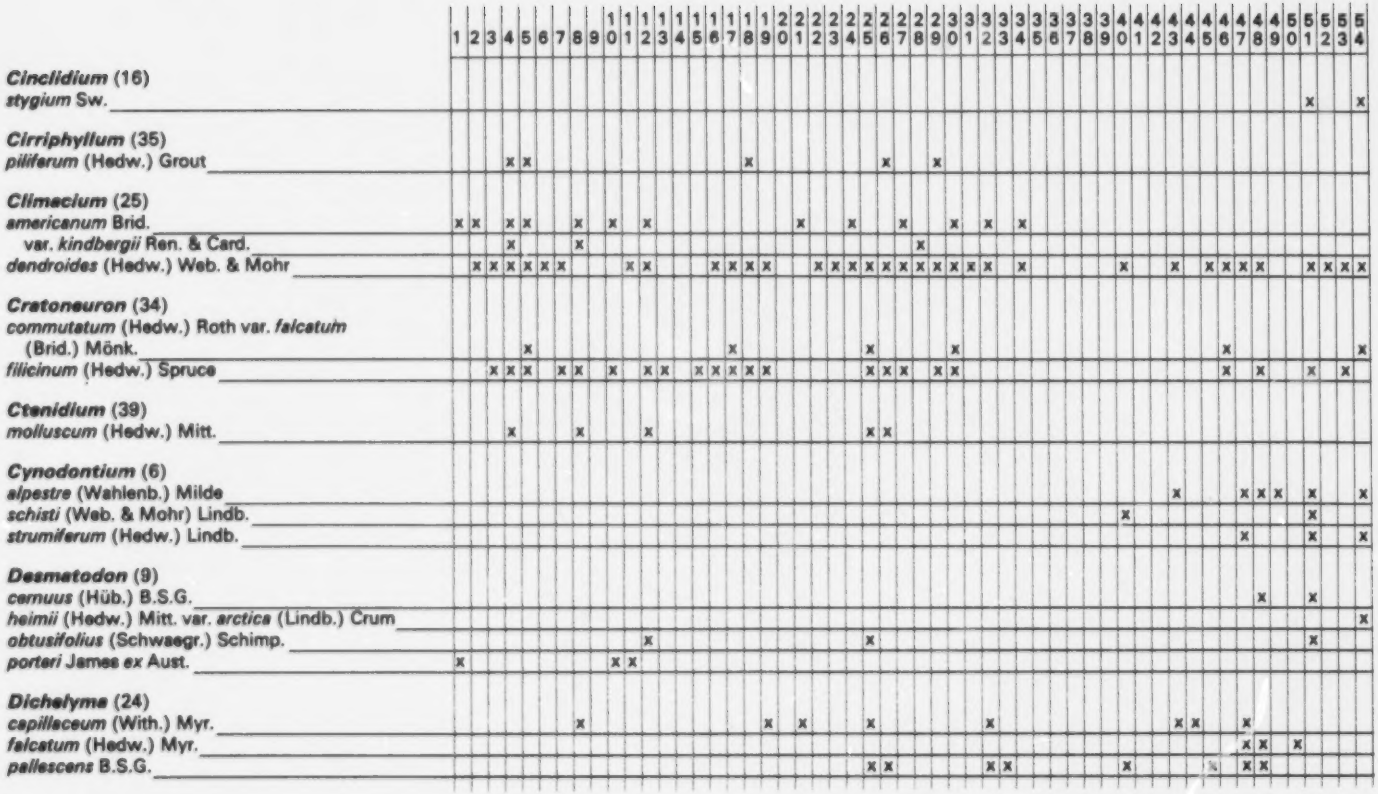
Note: The number in parentheses after each genus refers to the family to which the genus belongs (see Systematic Arrangement). Numbers 1 to 54 in the column headings represent either the county or the district in Ontario from which the specimen was collected (see list on p. 20).

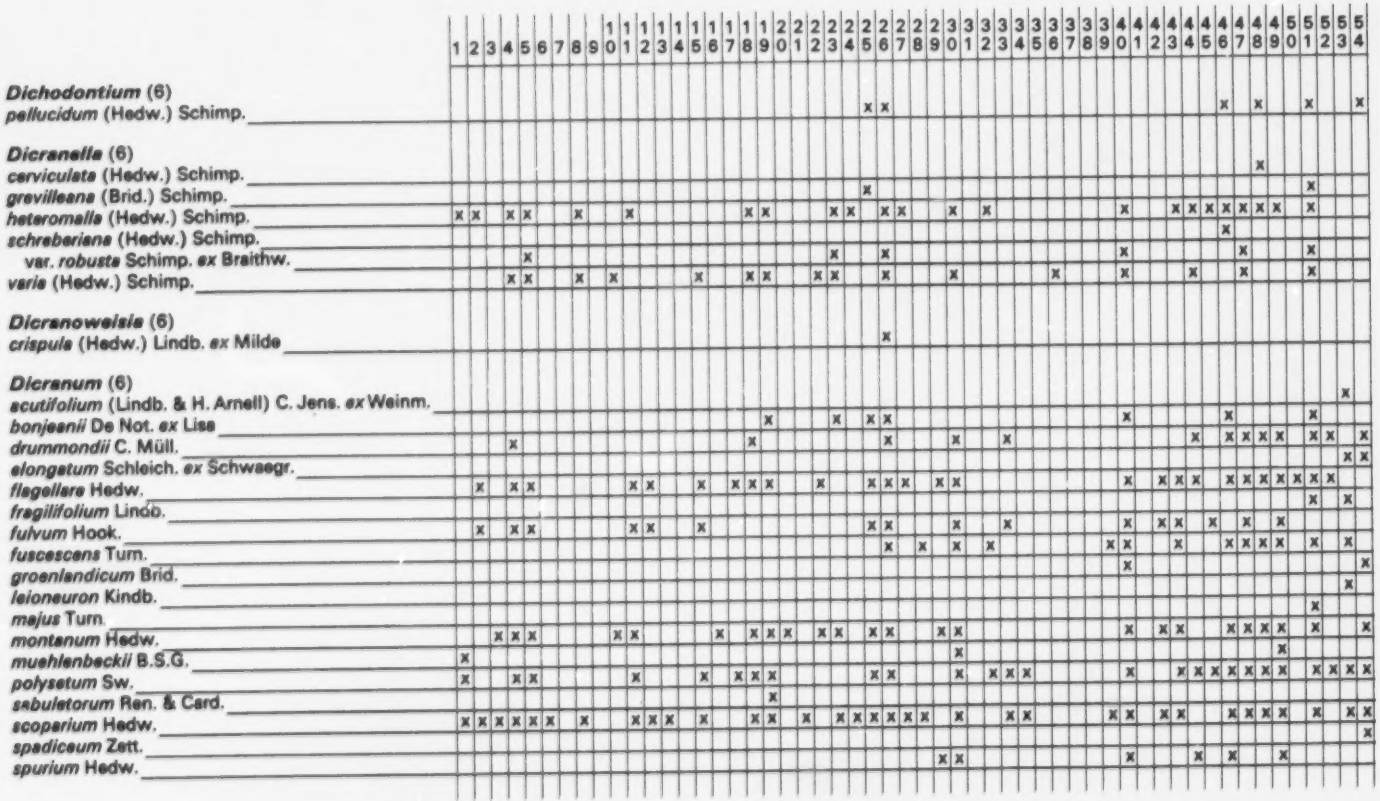

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
Anacamptodon (31)
splachnoides (F. Fröhl. ex Brid.) Brid.
Andreaea (2)
rothii Web. & Mohr
rupestris Hedw.
Anomodon (33)
attenuatus (Hedw.) Hüb.
minor (Hedw.) Fürnr.
rostratus (Hedw.) Schimp.
rugelii (C. Müll.) Keissl.
viticulosus (Hedw.) Hook. & Tayl.
Aphanorrhegma (12)
serratum (Hook. f. & Wils. ex Drumm.) Sull.
Astomum (9)
muhlenbergianum (Sw.) Grout
Atrichum (45)
altecristatum (Ren. & Card.) Irel.
angustatum (Brid.) B.S.G.
crispum (James) Sull.
oerstedianum (C. Müll.) Mitt.
selwynii Aust.
tenellum (Röhl.) B.S.G.
undulatum (Hedw.) P. Beauv.
Aulacomnium (17)
acuminatum (Lindb. & H. Arnell) Kindb.
androgynum (Hedw.) Schwaegr.
heterostichum (Hedw.) B.S.G.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
palustre (Hedw.) Schwaegr.
turgidum (Wahlenb.) Schwaegr.
Barbula (9)
acuta (Brid.) Brid.
convoluta Hedw.
fallax Hedw.
reflexa (Brid.) Brid.
unguiculata Hedw.
Bartramia (20)
pomiformis Hedw.
Blindia (5)
acuta (Hedw.) B.S.G.
Brachythecium (35)
acuminatum (Hedw.) Aust.
albicans (Hedw.) B.S.G.
calcareum Kindb.
campestre (C. Müll.) B.S.G.
curtum (Lindb.) Limpr.
digastrum C. Müll. & Kindb. ex Mac. & Kindb.
erythrorrhizon B.S.G.
oxycladon (Brid.) Jaeg. & Sauerb.
plumosum (Hedw.) B.S.G.
populeum (Hedw.) B.S.G.
reflexum (Starke ex Web. & Mohr) B.S.G.
rivulare B.S.G.
rutabulum (Hedw.) B.S.G.
salebrosum (Web. & Mohr) B.S.G.
turgidum (C.J. Hartm.) Kindb.
velutinum (Hedw.) B.S.G.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
Brotherella (38)
recurvans (Michx.) Fleisch.
tenuirostris (Bruch & Schimp. ex Sull.) Fleisch.
Bruchia (6)
flexuosa (Sw. ex Schwaegr.) C. Müll.
sullivantii Aust.
Bryhnia (35)
graminicolor (Brid.) Grout
novae-angliae (Sull. & Lesq. ex Sull.) Grout
Bryoandersonia (35)
illecebra (Hedw.) Robins.
Bryoerythrophyllum (9)
recurvirostrum (Hedw.) Chen
Bryum (15)
algovicum Sendtn. ex C. Müll.
argenteum Hedw.
bicolor Dicks.
blindii B.S.G.
caespiticium Hedw.
calophyllum R. Br.
capillare Hedw.
creberrimum Tayl.
gemmiparum De Not.
miniatum Lesq.
muehlenbeckii B.S.G.
pallens (Brid.) Sw. ex Röhl.
pallescens Schleich. ex Schwaegr.
pseudotriquetrum (Hedw.) Gaertn., Meyer, & Scherb.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
uliginosum (Brid.) B.S.G.
weigelii Spreng.
Buxbaumia (42)
aphylla Hedw.
minakatae Okam.
Calliciadium (39)
haldanianum (Grev.) Crum
Calliergon (34)
cordifolium (Hedw.) Kindb.
giganteum (Schimp.) Kindb.
richardsonii (Mitt.) Kindb. ex Warnst.
stramineum (Brid.) Kindb.
trifarium (Web. & Mohr) Kindb.
Calliergonella (34)
cuspidata (Hedw.) Loeske
Campylium (34)
chrysophyllum (Brid.) J. Lange
var. brevifolium (Ren. & Card.) Grout
hispidulum (Brid.) Mitt.
polygamum (B.S.G.) C. Jens.
radicale (P. Beauv.) Grout
stellatum (Hedw.) C. Jens.
Catoscopium (19)
nigritum (Hedw.) Brid.
Ceratodon (4)
purpureus (Hedw.) Brid.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
Cinclidium (16)
stygium Sw.
Cirriphyllum (35)
piliferum (Hedw.) Grout
Climacium (25)
americanum Brid.
var. kindbergii Ren. & Card.
dendroides (Hedw.) Web. & Mohr
Cratoneuron (34)
commutatum (Hedw.) Roth var. falcatum (Brid.) Mönk.
filicinum (Hedw.) Spruce
Ctenidium (39)
molluscum (Hedw.) Mitt.
Cynodontium (6)
alpestre (Wahlenb.) Milde
schisti (Web. & Mohr) Lindb.
strumiferum (Hedw.) Lindb.
Desmatodon (9)
cernuus (Hüb.) B.S.G.
heimii (Hedw.) Mitt. var. arctica (Lindb.) Crum
obtusifolius (Schwaegr.) Schimp.
porteri James ex Aust.
Dichelyma (24)
capillaceum (With.) Myr.
falcatum (Hedw.) Myr.
pallescens B.S.G.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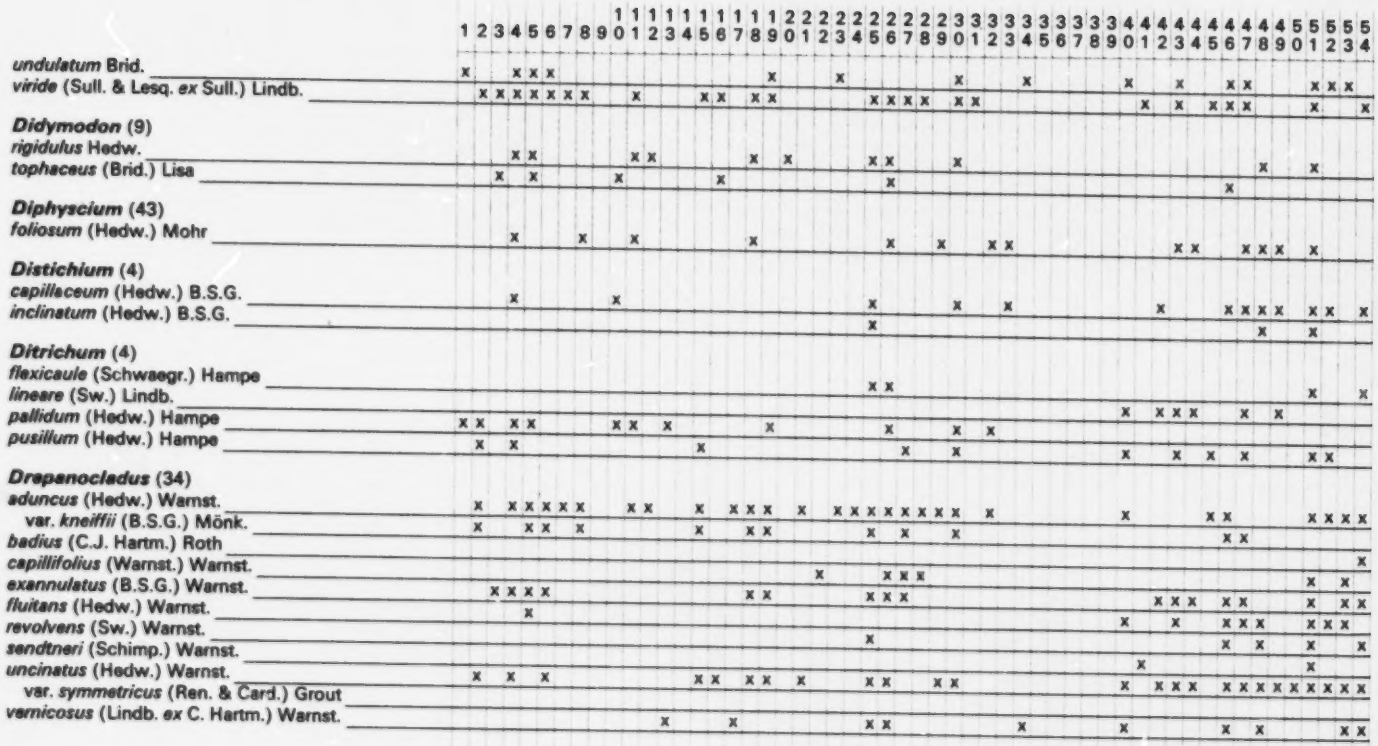
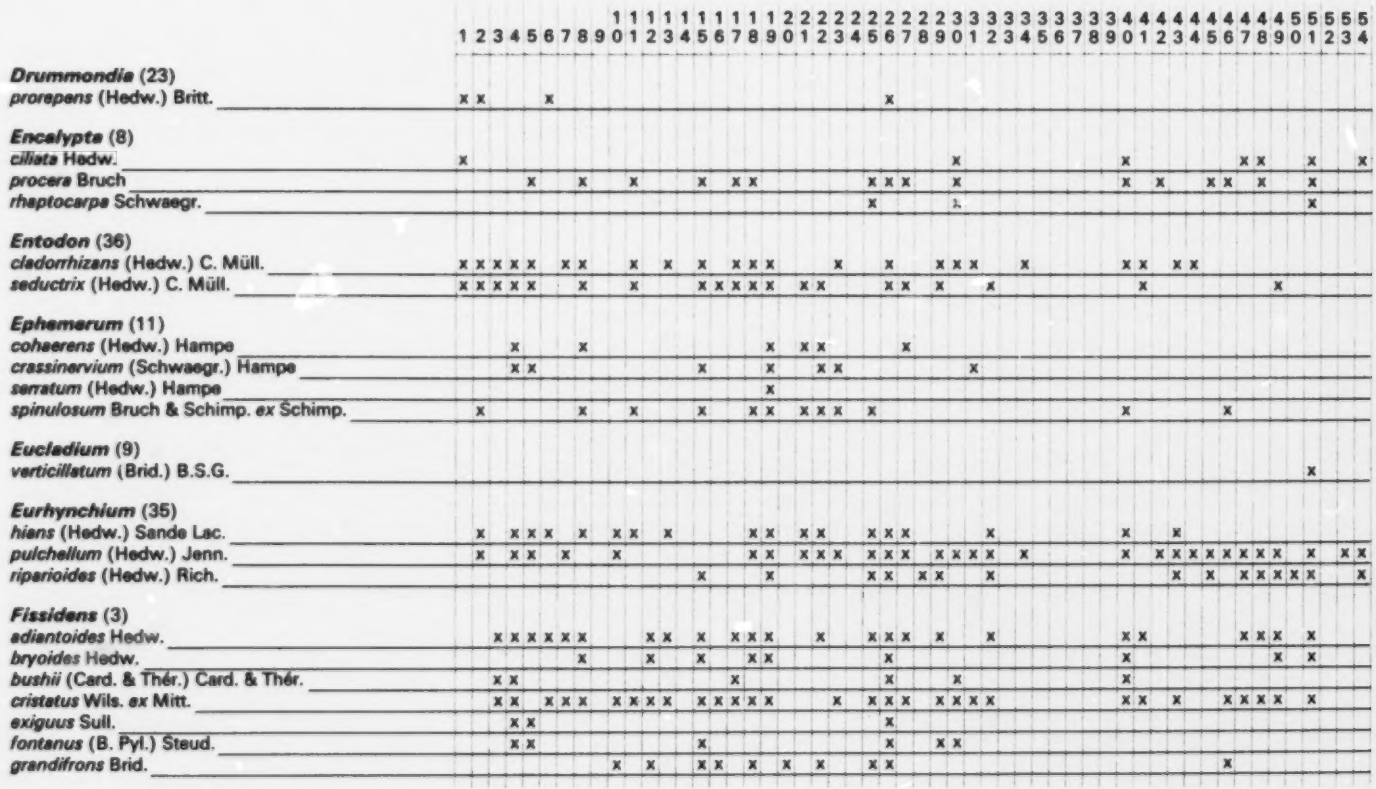
Dichodontium (6)
pellucidum (Hedw.) Schimp.
Dicranella (6)
cerviculata (Hedw.) Schimp.
grevilleana (Brid.) Schimp.
heteromalla (Hedw.) Schimp.
schreberiana (Hedw.) Schimp.
var. robusta Schimp. ex Braithw.
varia (Hedw.) Schimp.
Dicranoweisia (6)
crispula (Hedw.) Lindb. ex Milde
Dicranum (6)
scutifolium (Lindb. & H. Arnell) C. Jens. ex Weinm.
bonjeanii De Not. ex Lisa
drummondii C. Müll.
elongatum Schleich. ex Schwaegr.
flagellare Hedw.
fragilifolium Lindb.
fulvum Hook.
fuscescens Turn.
groenlandicum Brid.
leioneuron Kindb.
majus Turn.
montanum Hedw.
muehlenbeckii B.S.G.
polysetum Sw.
sabuletorum Ren. & Card.
scoparium Hedw.
spadiceum Zett.
spurium Hedw.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
undulatum Brid.
viride (Sull. & Lesq. ex Sull.) Lindb.
Didymodon (9)
rigidulus Hedw.
tophaceus (Brid.) Lisa
Diphyscium (43)
foliosum (Hedw.) Mohr
Distichium (4)
capillaceum (Hedw.) B.S.G.
inclinatum (Hedw.) B.S.G.
Ditrichum (4)
flexicaule (Schwaegr.) Hampe
lineare (Sw.) Lindb.
pallidum (Hedw.) Hampe
pusillum (Hedw.) Hampe
Drepanocladus (34)
aduncus (Hedw.) Warnst.
var. kneiffii (B.S.G.) Mönk.
badius (C.J. Hartm.) Roth
capillifolius (Warnst.) Warnst.
exannulatus (B.S.G.) Warnst.
fluitans (Hedw.) Warnst.
revolvens (Sw.) Warnst.
sendtneri (Schimp.) Warnst.
uncinatus (Hedw.) Warnst.
var. symmetricus (Ren. & Card.) Grout
vernicosus (Lindb. ex C. Hartm.) Warnst.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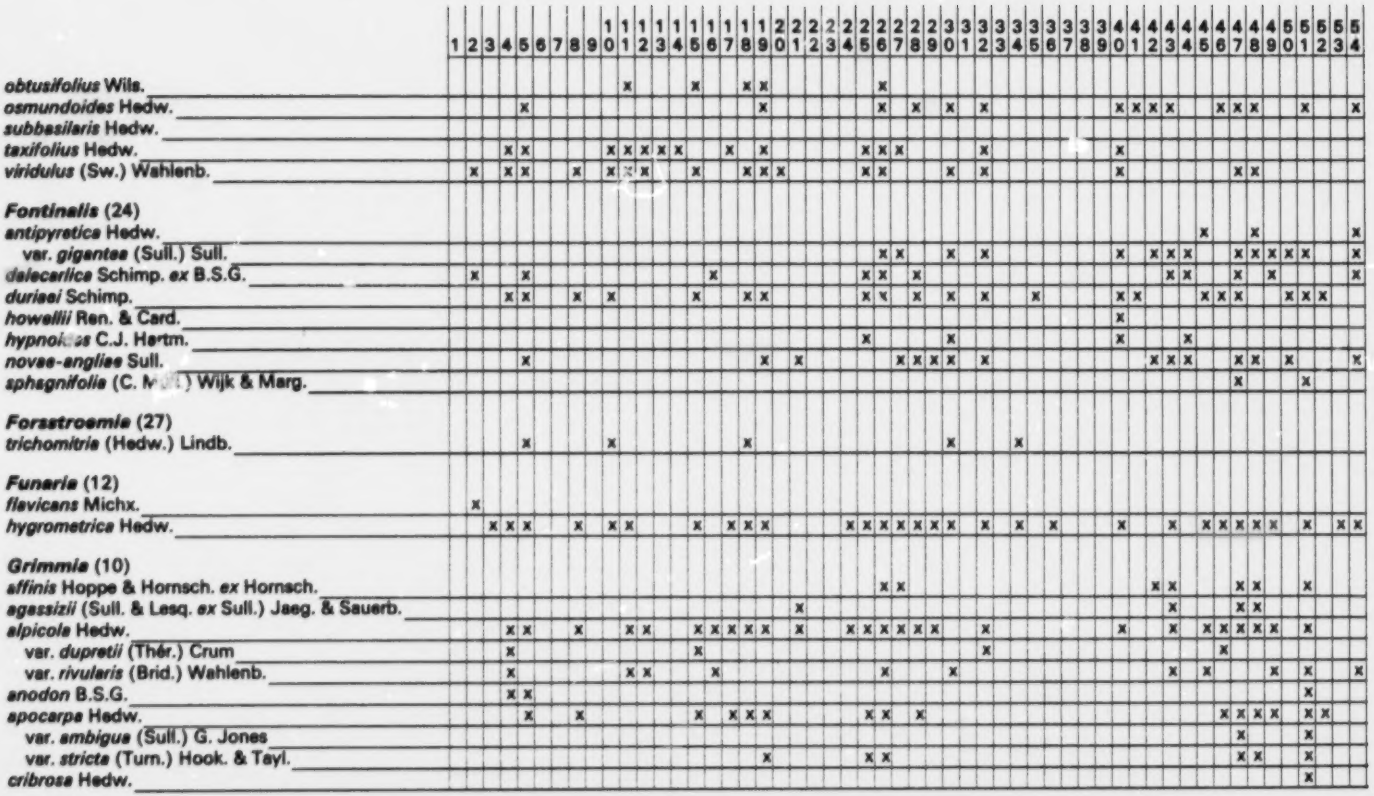
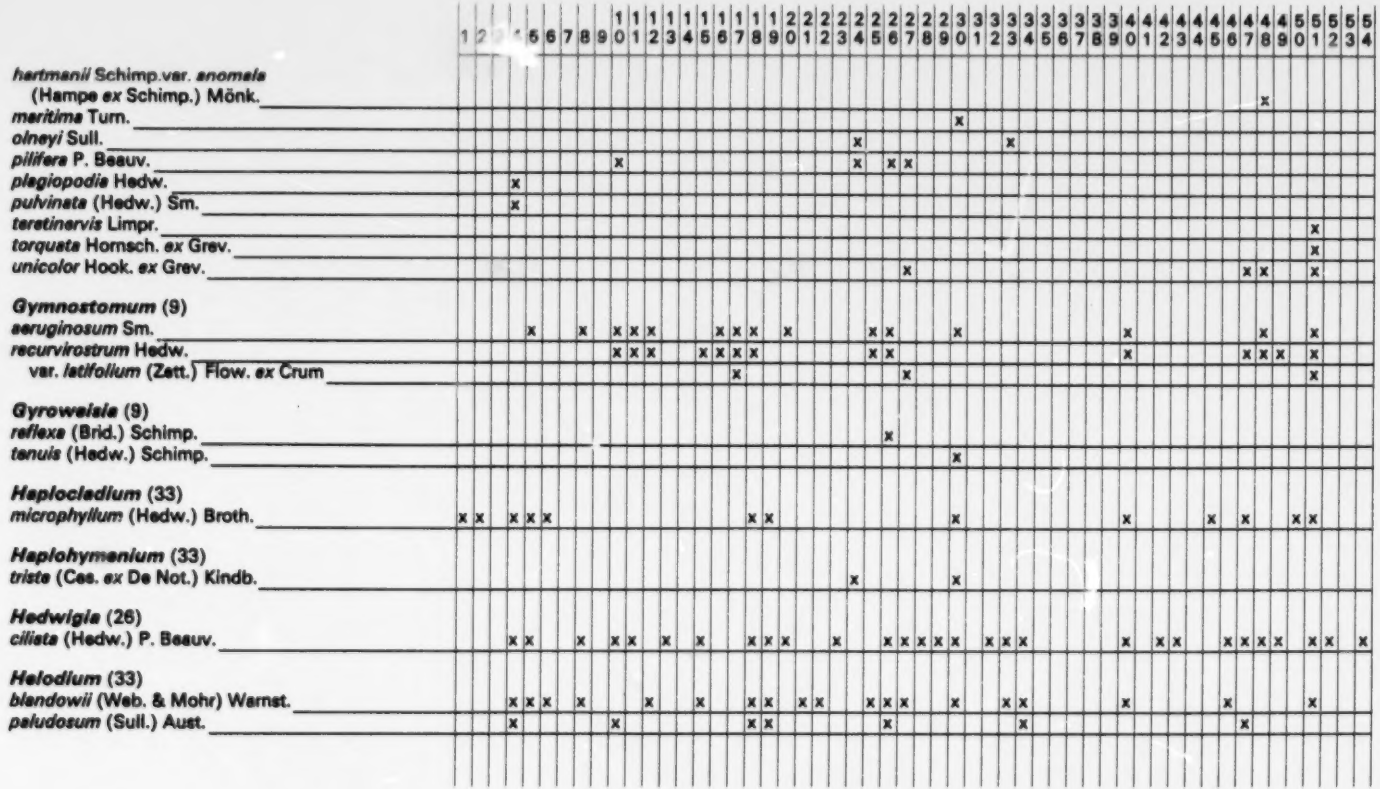
Drummondia (23)
prorepens (Hedw.) Britt.
Encalypta (8)
ciliata Hedw.
procera Bruch
rhaptocarpa Schwaegr.
Entodon (36)
cladorrhizans (Hedw.) C. Müll.
seductrix (Hedw.) C. Müll.
Ephemerum (11)
cohaerens (Hedw.) Hampe
crassinervium (Schwaegr.) Hampe
serratum (Hedw.) Hampe
spinulosum Bruch & Schimp. ex Schimp.
Eucladium (9)
verticillatum (Brid.) B.S.G.
Eurhynchium (35)
hians (Hedw.) Sande Lac.
pulchellum (Hedw.) Jenn.
riparioides (Hedw.) Rich.
Fissidens (3)
adiantoides Hedw.
bryoides Hedw.
bushii (Card. & Thér.) Card. & Thér.
cristatus Wils. ex Mitt.
exiguus Sull.
fontanus (B. Pyl.) Steud.
grandifrons Brid.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
obtusifolius Wils.
osmundoides Hedw.
subbasilaris Hedw.
taxifolius Hedw.
viridulus (Sw.) Wahlenb.
Fontinalis (24)
antipyretica Hedw.
var. gigantea (Sull.) Sull.
dalecarlica Schimp. ex B.S.G.
durissi Schimp.
howellii Ren. & Card.
hypnoides C.J. Hartm.
novae-angliae Sull.
sphagnifolia (C. Müll.) Wijk & Marg.
Forsstroemia (27)
trichomitria (Hedw.) Lindb.
Funaria (12)
flavicans Michx.
hygrometrica Hedw.
Grimmia (10)
affinis Hoppe & Hornsch. ex Hornsch.
agassizii (Sull. & Lesq. ex Sull.) Jaeg. & Sauerb.
alpicola Hedw.
var. dupretii (Thér.) Crum
var. rivularis (Brid.) Wahlenb.
anodon B.S.G.
apocarpa Hedw.
var. ambigua (Sull.) G. Jones
var. stricta (Turn.) Hook. & Tayl.
cribrosa Hedw.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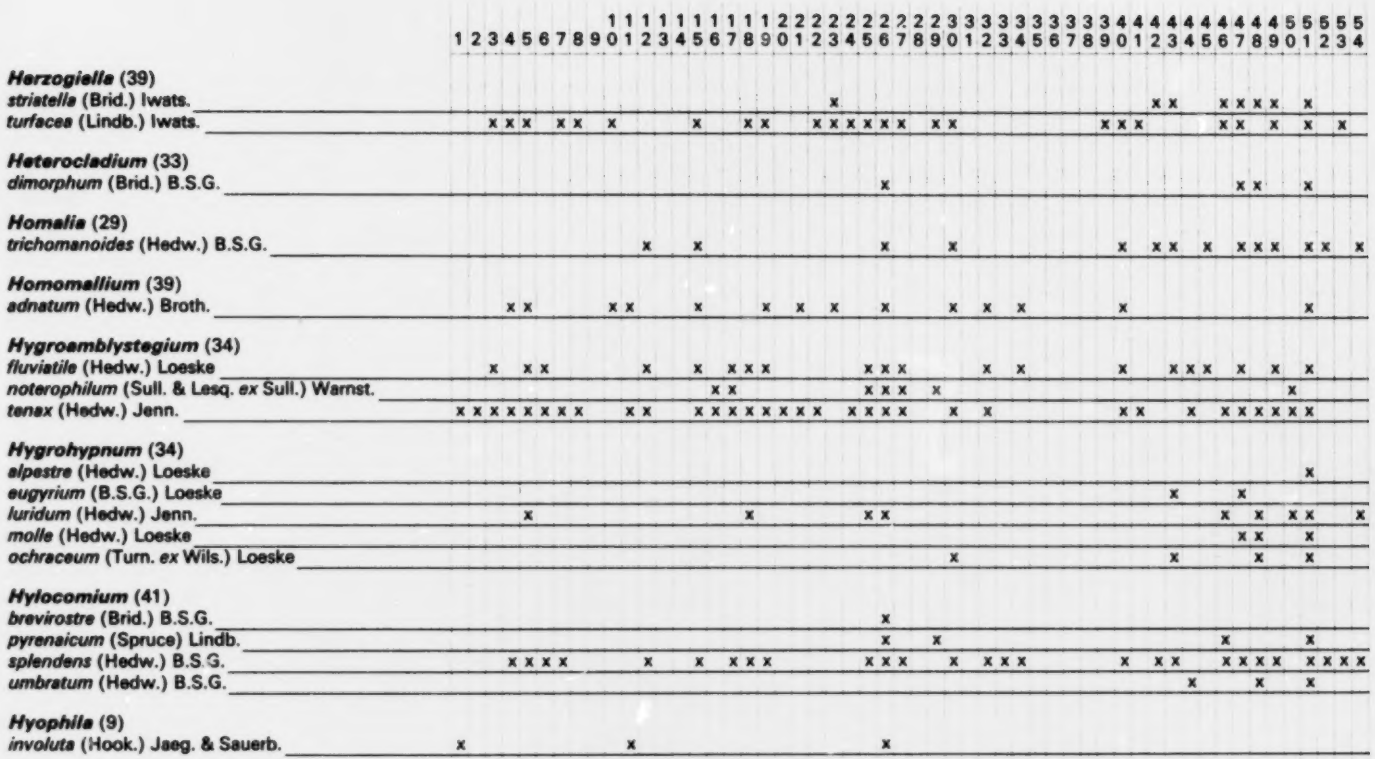
hartmanii Schimp.var. anomala (Hampe ex Schimp.) Mönk.
maritima Turn.
olneyi Sull.
pilifera P. Beauv.
plagiopodia Hedw.
pulvinata (Hedw.) Sm.
teretinervis Limpr.
torquata Hornsch. ex Grev.
unicolor Hook. ex Grev.
Gymnostomum (9)
aeruginosum Sm.
recurvirostrum Hedw.
var. latifolium (Zett.) Flow. ex Crum
Gyroweisia (9)
reflexa (Brid.) Schimp.
tenuis (Hedw.) Schimp.
Haplocladium (33)
microphyllum (Hedw.) Broth.
Haplohymenium (33)
triste (Ces. ex De Not.) Kindb.
Hedwigia (26)
ciliata (Hedw.) P. Beauv.
Helodium (33)
blandowii (Web. & Mohr) Warnst.
paludosum (Sull.) Aust.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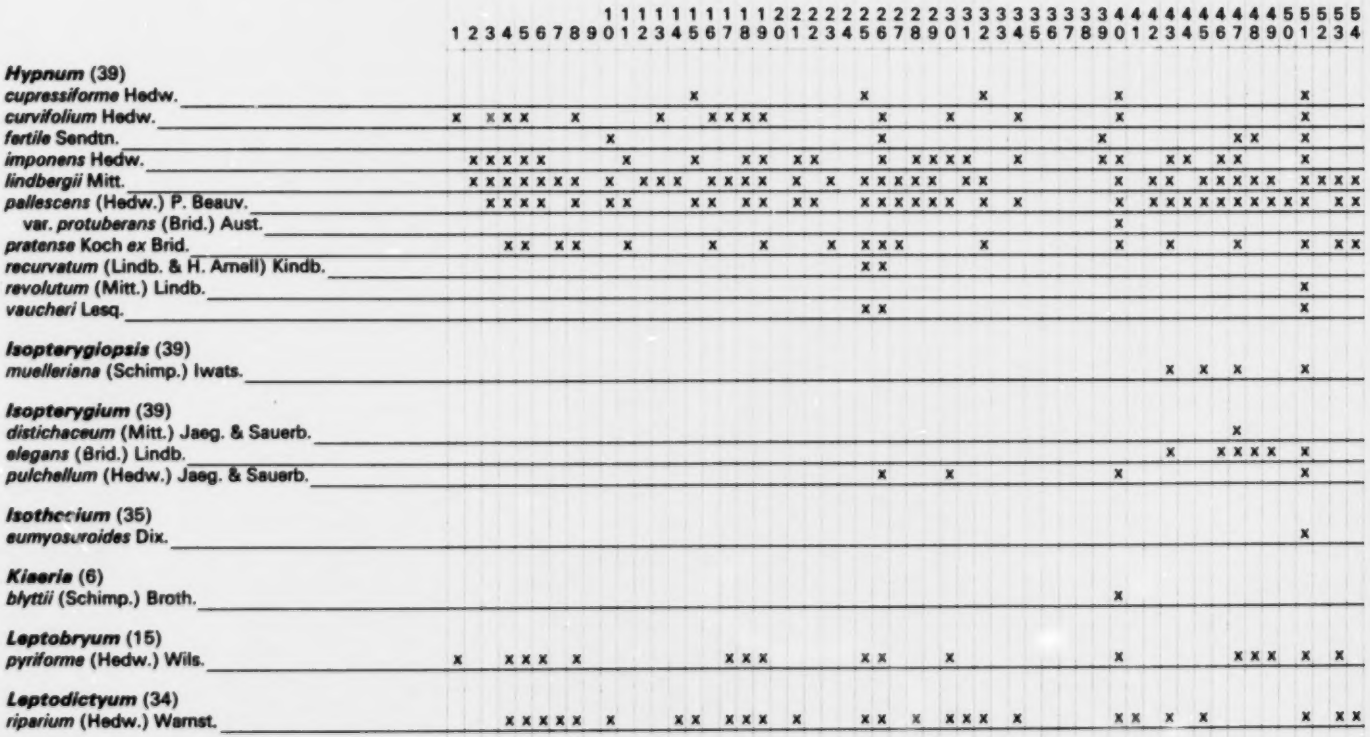
Herzogiella (39)
striatella (Brid.) Iwats.
turfacea (Lindb.) Iwats.
Heterocladium (33)
dimorphum (Brid.) B.S.G.
Homalia (29)
trichomanoides (Hedw.) B.S.G.
Homomallium (39)
adnatum (Hedw.) Broth.
Hygroamblystegium (34)
fluviatile (Hedw.) Loeske
noterophilum (Sull. & Lesq. ex Sull.) Warnst.
tenax (Hedw.) Jenn.
Hygrohypnum (34)
alpestre (Hedw.) Loeske
eugyrium (B.S.G.) Loeske
luridum (Hedw.) Jenn.
molle (Hedw.) Loeske
ochraceum (Turn. ex Wils.) Loeske
Hylocomium (41)
brevirostre (Brid.) B.S.G.
pyrenaicum (Spruce) Lindb.
splendens (Hedw.) B.S.G.
umbratum (Hedw.) B.S.G.
Hyophila (9)
involuta (Hook.) Jaeg. & Sauerb.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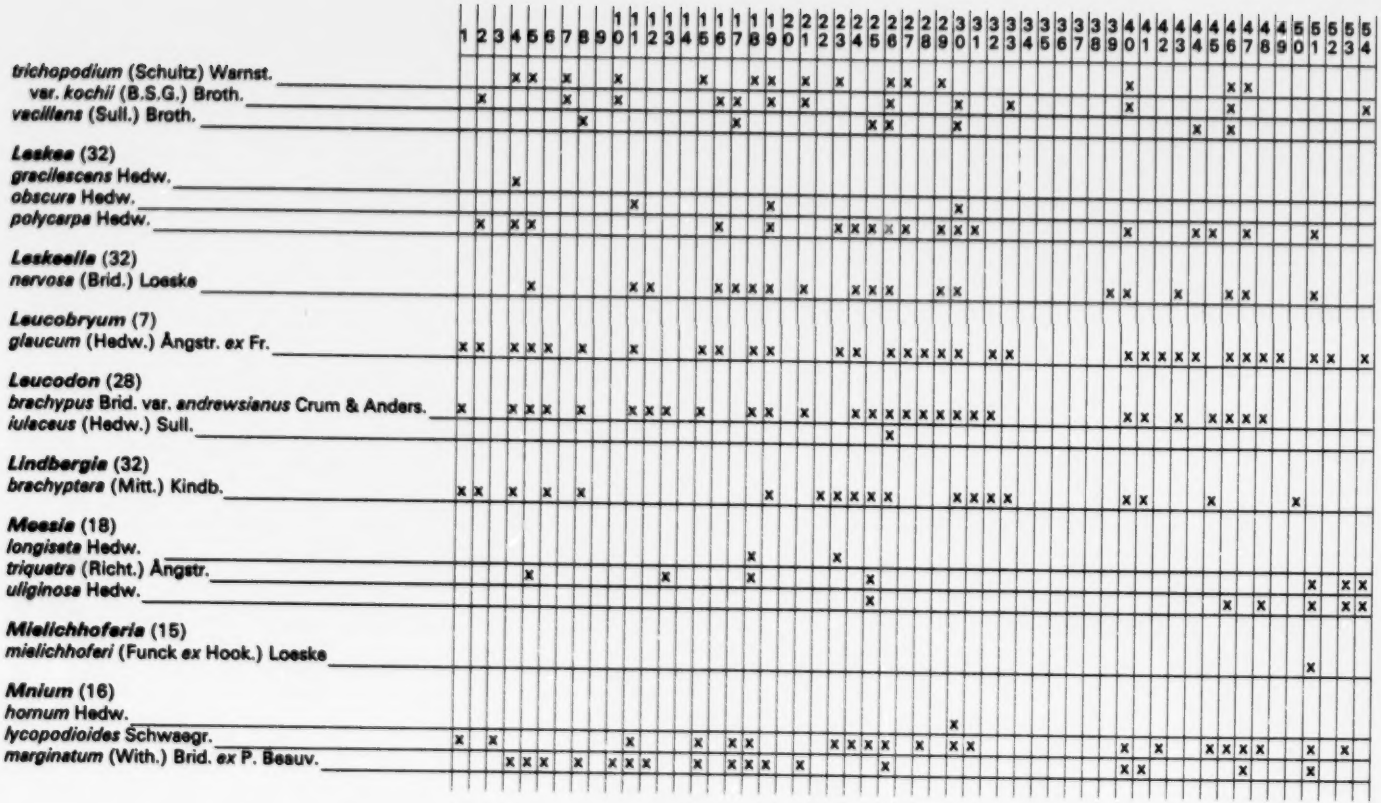
Hypnum (39)
cupressiforme Hedw.
curvifolium Hedw.
fertile Sendtn.
imponens Hedw.
lindbergii Mitt.
pallescens (Hedw.) P. Beauv.
var. protuberans (Brid.) Aust.
pratense Koch ex Brid.
recurvatum (Lindb. & H. Arnell) Kindb.
revolutum (Mitt.) Lindb.
vaucheri Lesq.
Isopterygiopsis (39)
muelleriana (Schimp.) Iwats.
Isopterygium (39)
distichaceum (Mitt.) Jaeg. & Sauerb.
elegans (Brid.) Lindb.
pulchellum (Hedw.) Jaeg. & Sauerb.
Isothecium (35)
eumyosuroides Dix.
Kiaeria (6)
blyttii (Schimp.) Broth.
Leptobryum (15)
pyriforme (Hedw.) Wils.
Leptodictyum (34)
riparium (Hedw.) Warnst.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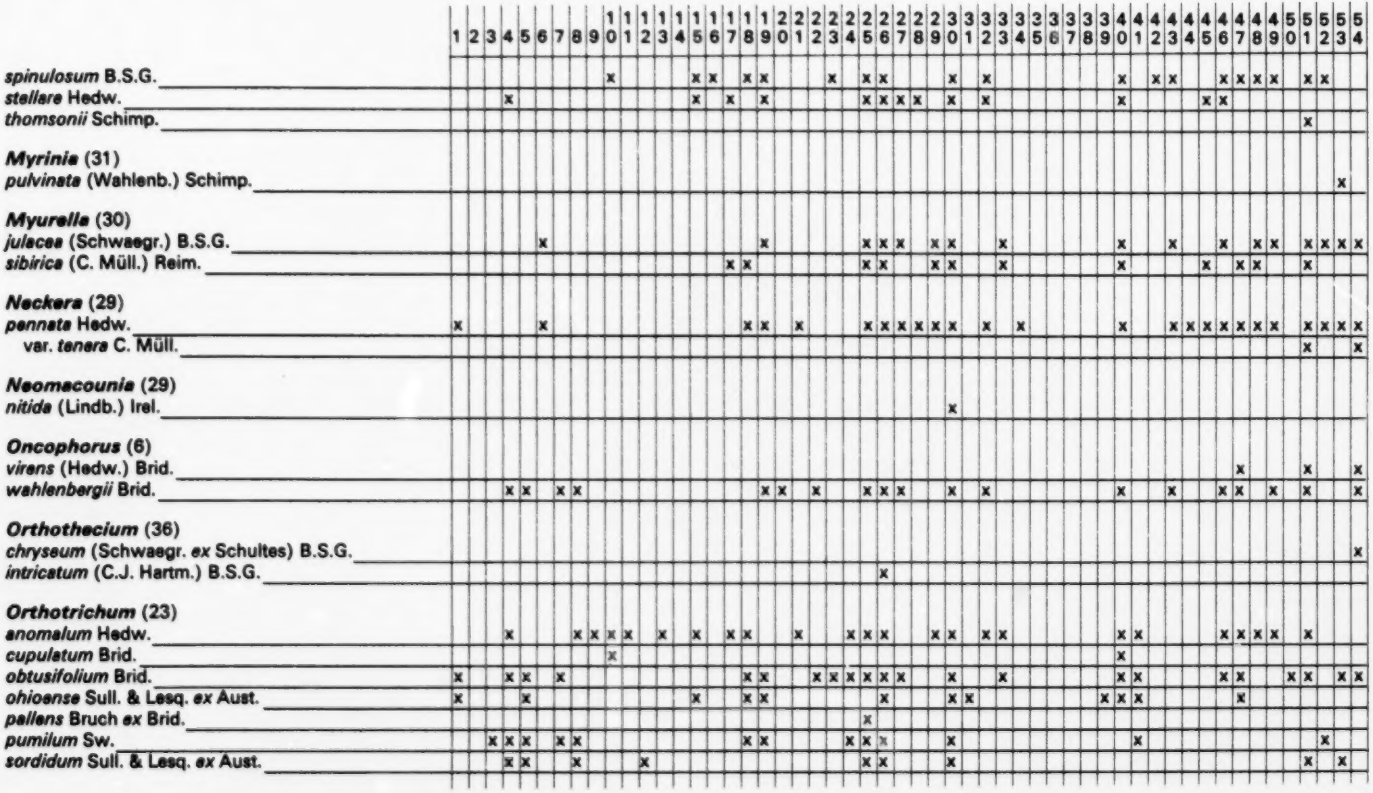
trichopodium (Schultz) Warnst.
var. kochii (B.S.G.) Broth.
vacillans (Sull.) Broth.
Leskea (32)
gracilescens Hedw.
obscura Hedw.
polycarpa Hedw.
Leskeella (32)
nervosa (Brid.) Loeske
Leucobryum (7)
glaucum (Hedw.) Angstr. ex Fr.
Leucodon (28)
brachypus Brid. var. andrewsianus Crum & Anders.
julaceus (Hedw.) Sull.
Lindbergia (32)
brachyptera (Mitt.) Kindb.
Meesia (18)
longiseta Hedw.
triquetra (Richt.) Angstr.
uliginosa Hedw.
Mielichhoferia (15)
mielichhoferi (Funck ex Hook.) Loeske
Mnium (16)
hornum Hedw.
lycopodioides Schwaegr.
marginatum (With.) Brid. ex P. Beauv.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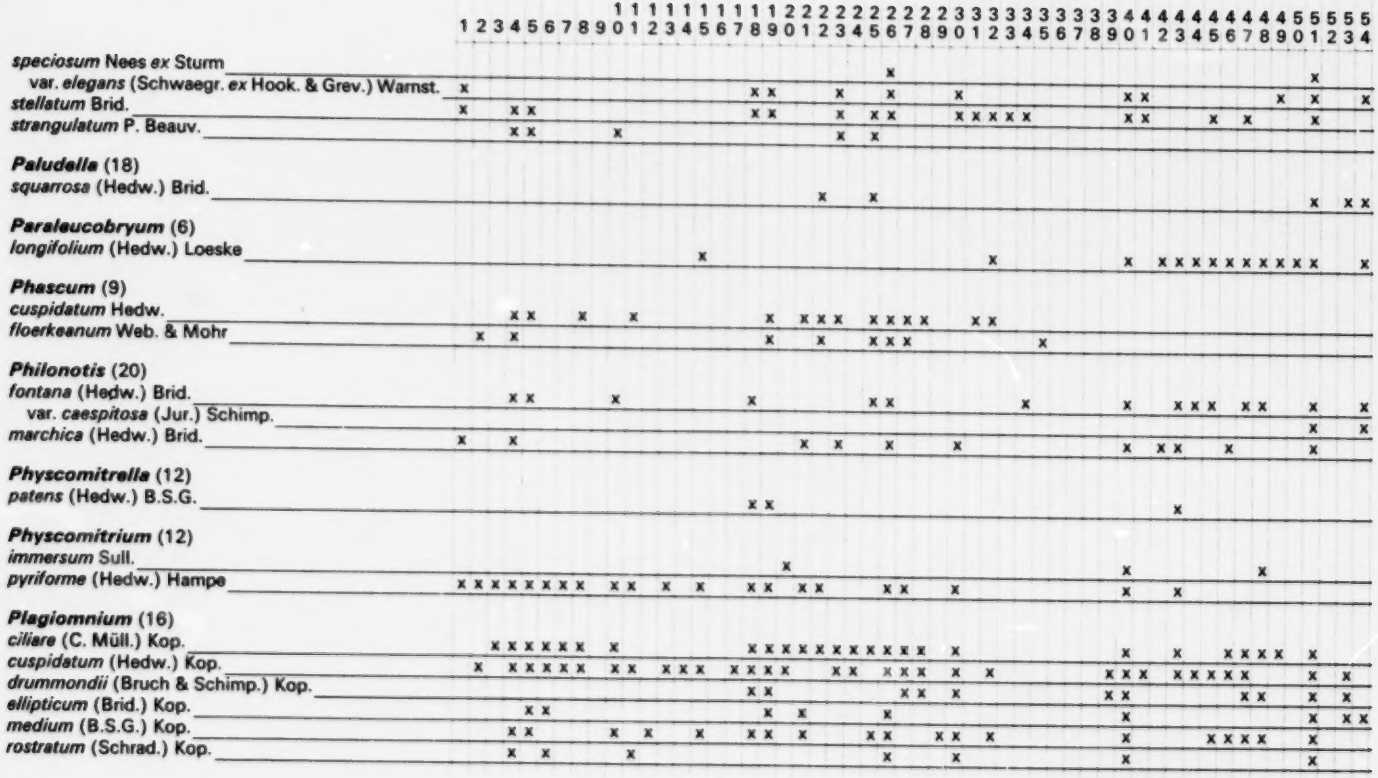
spinulosum B.S.G.
stellare Hedw.
thomsonii Schimp.
Myrinia (31)
pulvinata (Wahlenb.) Schimp.
Myurella (30)
julacea (Schwaegr.) B.S.G.
sibirica (C. Müll.) Reim.
Neckera (29)
pennata Hedw.
var. tenera C. Müll.
Neomacounia (29)
nitida (Lindb.) Irel.
Oncophorus (6)
virens (Hedw.) Brid.
wahlenbergii Brid.
Orthothecium (36)
chryseum (Schwaegr. ex Schultes) B.S.G.
intricatum (C.J. Hartm.) B.S.G.
Orthotrichum (23)
anomalum Hedw.
cupulatum Brid.
obtusifolium Brid.
ohioense Sull. & Lesq. ex Aust.
pallens Bruch ex Brid.
pumilum Sw.
sordidum Sull. & Lesq. ex Aust.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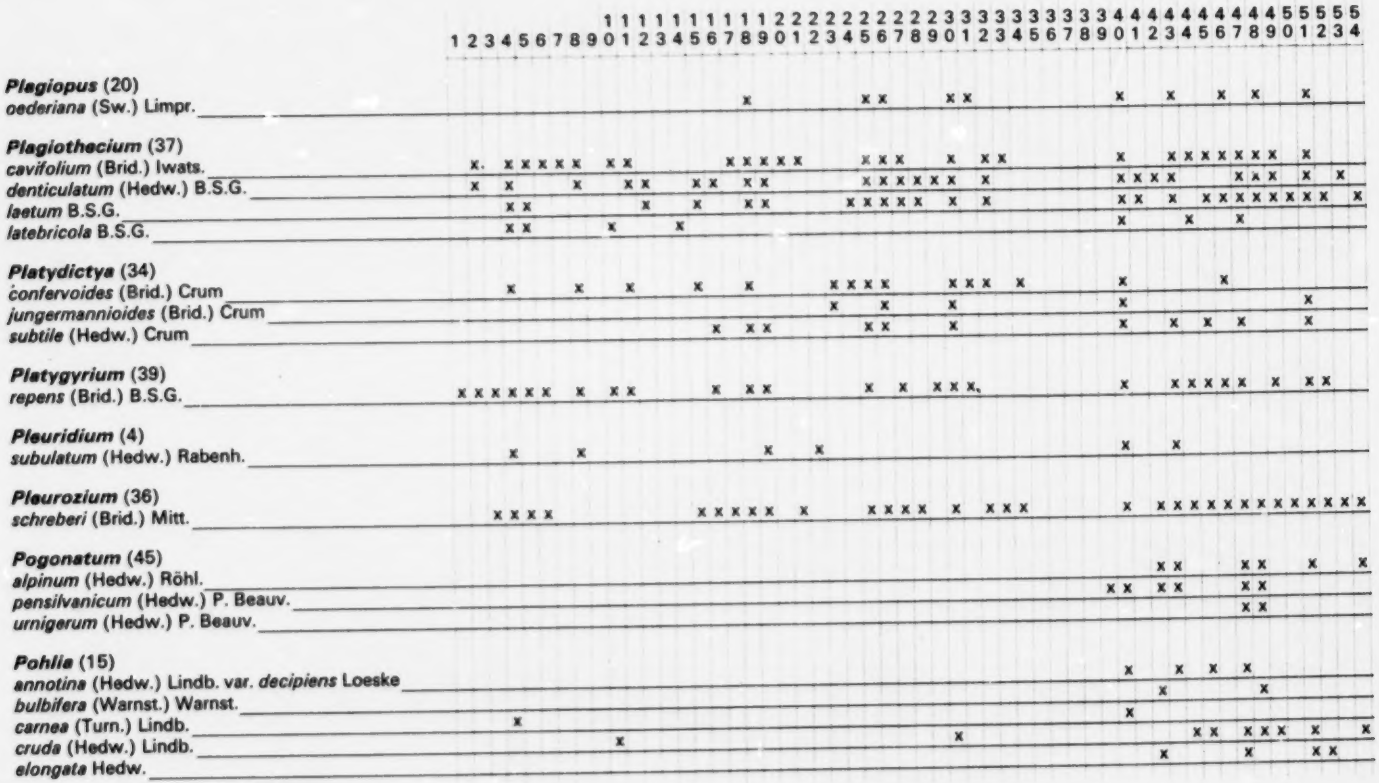
speciosum Nees ex Sturm
var. elegans (Schwaegr. ex Hook. & Grev.) Warnst.
stellatum Brid.
strangulatum P. Beauv.
Paludella (18)
squarrosa (Hedw.) Brid.
Paraleucobryum (6)
longifolium (Hedw.) Loeske
Phascum (9)
cuspidatum Hedw.
floerkeanum Web. & Mohr
Philonotis (20)
fontana (Hedw.) Brid.
var. caespitosa (Jur.) Schimp.
marchica (Hedw.) Brid.
Physcomitrella (12)
patens (Hedw.) B.S.G.
Physcomitrium (12)
immersum Sull.
pyriforme (Hedw.) Hampe
Plagiomnium (16)
ciliare (C. Müll.) Kop.
cuspidatum (Hedw.) Kop.
drummondii (Bruch & Schimp.) Kop.
ellipticum (Brid.) Kop.
medium (B.S.G.) Kop.
rostratum (Schrad.) Kop.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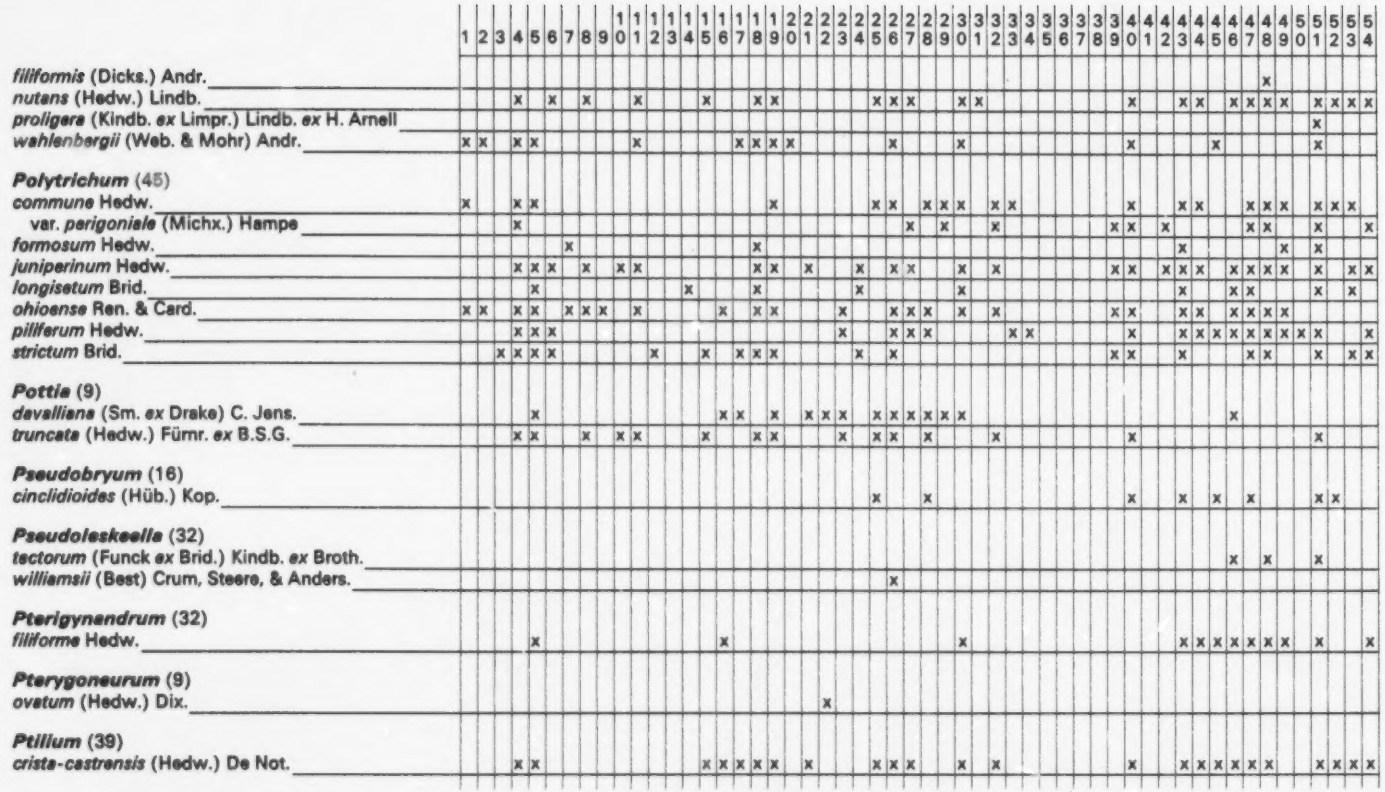
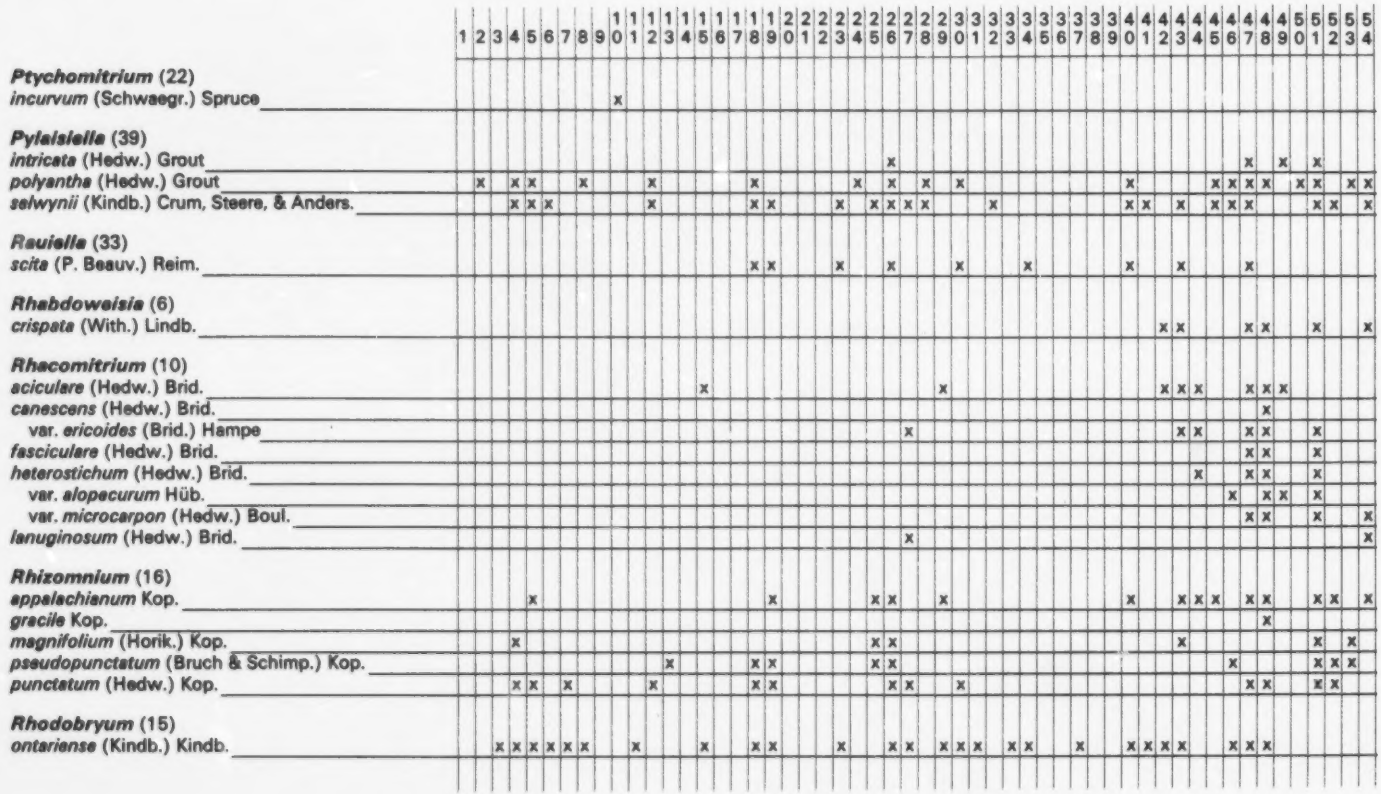
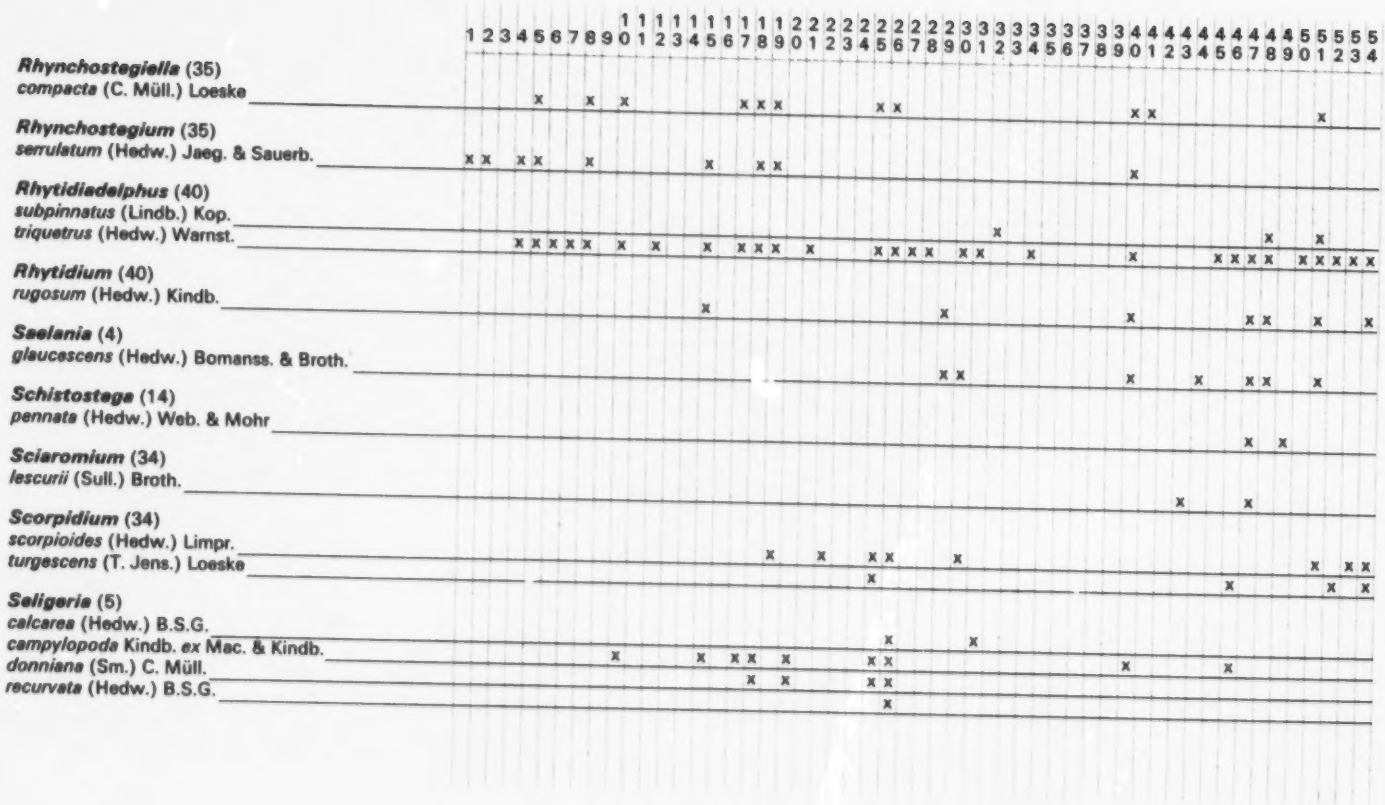
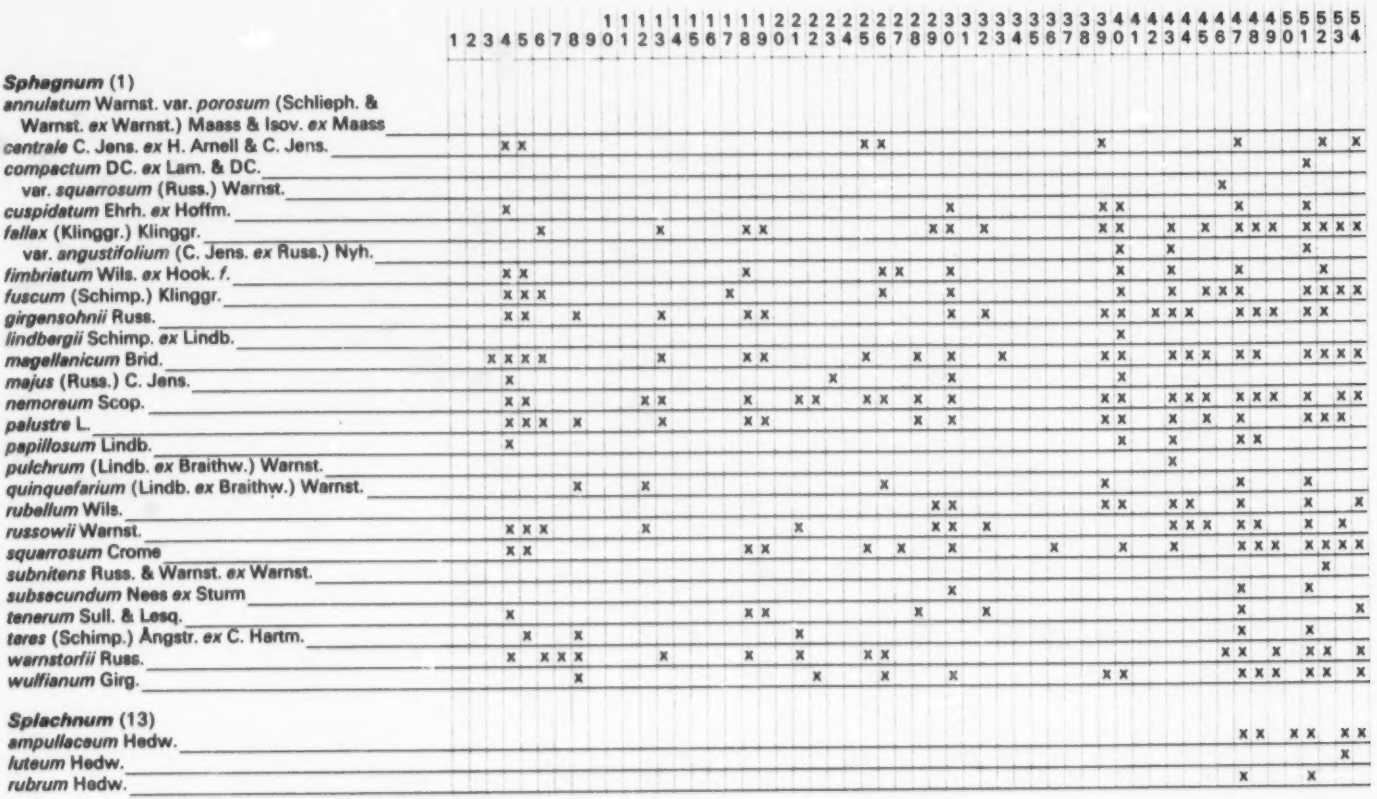
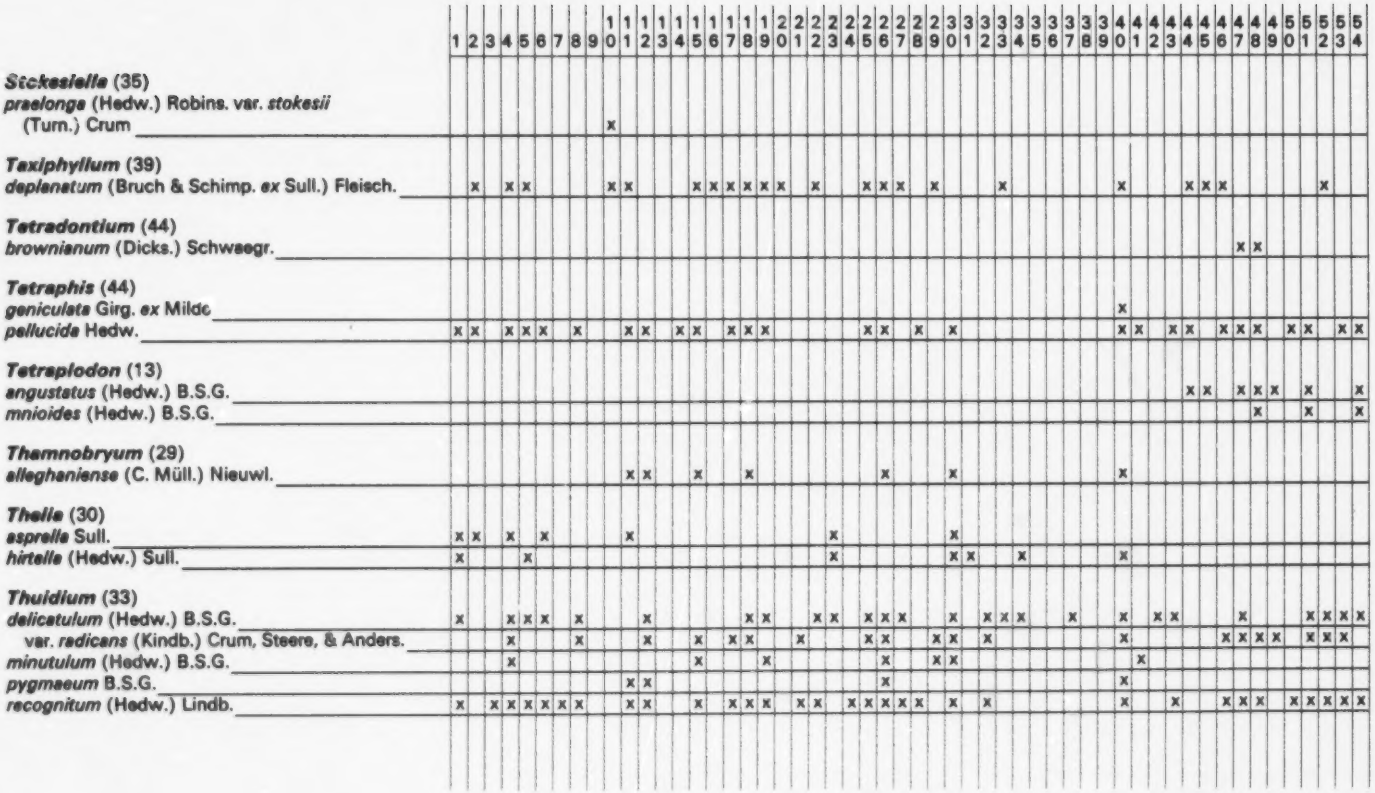
Plagiopus (20)
oederiana (Sw.) Limpr.
Plagiothecium (37)
cavifolium (Brid.) Iwats.
denticulatum (Hedw.) B.S.G.
laetum B.S.G.
latebricola B.S.G.
Platydictya (34)
confervoides (Brid.) Crum
jungermannioides (Brid.) Crum
subtile (Hedw.) Crum
Platygyrium (39)
repens (Brid.) B.S.G.
Pleuridium (4)
subulatum (Hedw.) Rabenh.
Pleurozium (36)
schreberi (Brid.) Mitt.
Pogonatum (45)
alpinum (Hedw.) Röhl.
pensilvanicum (Hedw.) P. Beauv.
urnigerum (Hedw.) P. Beauv.
Pohlia (15)
annotina (Hedw.) Lindb. var. decipiens Loeske
bulbifera (Warnst.) Warnst.
carnea (Turn.) Lindb.
cruda (Hedw.) Lindb.
elongata Hedw.

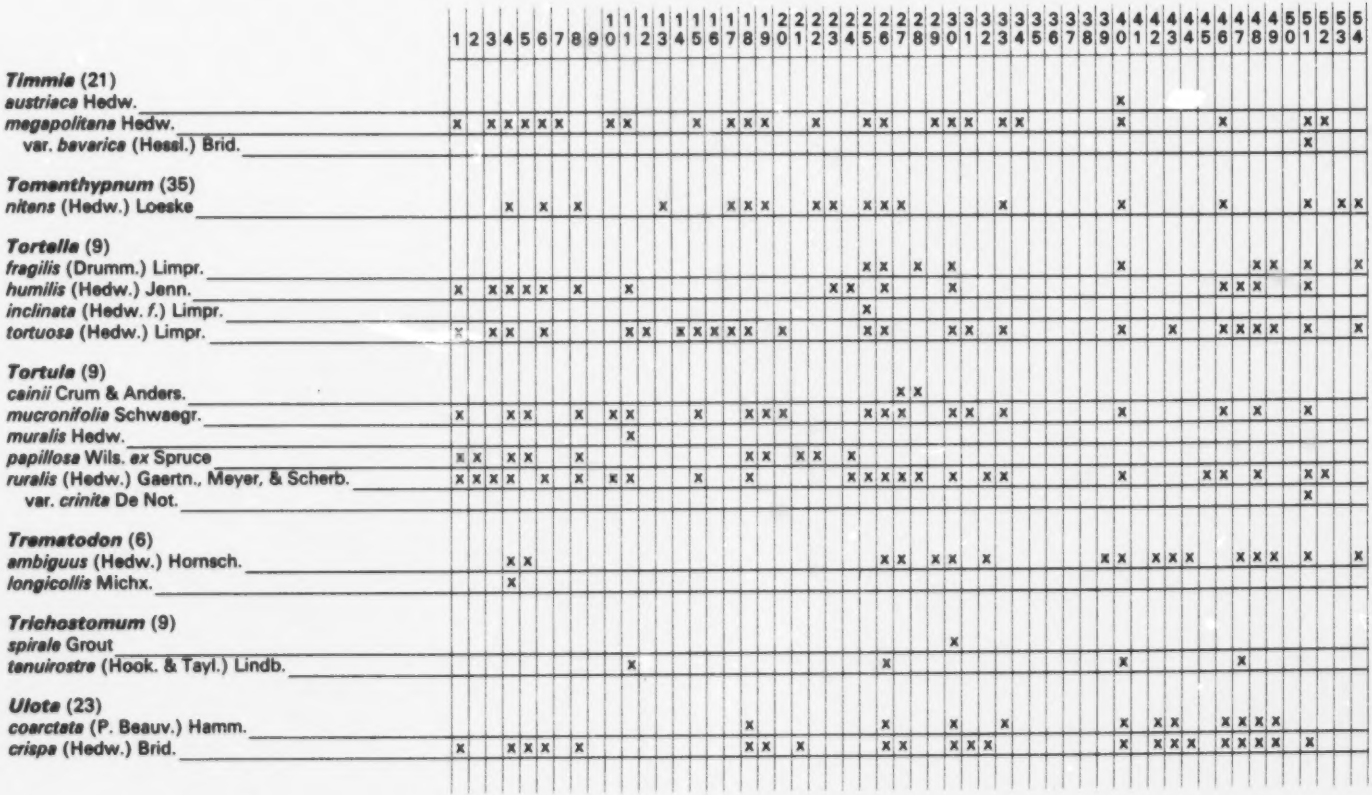

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
filiformis (Dicks.) Andr.
nutans (Hedw.) Lindb.
proligera (Kindb. ex Limpr.) Lindb. ex H. Arnell
wahlenbergii (Web. & Mohr) Andr.
Polytrichum (45)
commune Hedw.
var. perigoniale (Michx.) Hampe
formosum Hedw.
juniperinum Hedw.
longisetum Brid.
ohioense Ren. & Card.
piliferum Hedw.
strictum Brid.
Pottia (9)
davalliana (Sm. ex Drake) C. Jens.
truncata (Hedw.) Fürnr. ex B.S.G.
Pseudobryum (16)
cinclidioides (Hüb.) Kop.
Pseudoleskeella (32)
tectorum (Funck ex Brid.) Kindb. ex Broth.
williamsii (Best) Crum, Steere, & Anders.
Pterigynandrum (32)
filiforme Hedw.
Pterygoneurum (9)
ovatum (Hedw.) Dix.
Ptilium (39)
crista-castrensis (Hedw.) De Not.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
Ptychomitrium (22)
incurvum (Schwaegr.) Spruce
Pylaisiella (39)
intricata (Hedw.) Grout
polyantha (Hedw.) Grout
selwynii (Kindb.) Crum, Steere, & Anders.
Rauiella (33)
scita (P. Beauv.) Reim.
Rhabdoweisia (6)
crispata (With.) Lindb.
Rhacomitrium (10)
aciculare (Hedw.) Brid.
canescens (Hedw.) Brid.
var. ericoides (Brid.) Hampe
fasciculare (Hedw.) Brid.
heterostichum (Hedw.) Brid.
var. alopecurum Hüb.
var. microcarpon (Hedw.) Boul.
lanuginosum (Hedw.) Brid.
Rhizomnium (16)
appalachianum Kop.
gracile Kop.
magnifolium (Horik.) Kop.
pseudopunctatum (Bruch & Schimp.) Kop.
punctatum (Hedw.) Kop.
Rhodobryum (15)
ontariense (Kindb.) Kindb.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
Rhynchostegiella (35)
compacta (C. Müll.) Loeske
Rhynchostegium (35)
serrulatum (Hedw.) Jaeg. & Sauerb.
Rhytidiadelphus (40)
subpinnatus (Lindb.) Kop.
triquetrus (Hedw.) Warnst.
Rhytidium (40)
rugosum (Hedw.) Kindb.
Saelania (4)
glaucescens (Hedw.) Bomanss. & Broth.
Schistostega (14)
pennata (Hedw.) Web. & Mohr
Sciaromium (34)
lescurii (Sull.) Broth.
Scorpidium (34)
scorpioides (Hedw.) Limpr.
turgescens (T. Jens.) Loeske
Seligeria (5)
calcarea (Hedw.) B.S.G.
campylopoda Kindb. ex Mac. & Kindb.
donniana (Sm.) C. Müll.
recurvata (Hedw.) B.S.G.

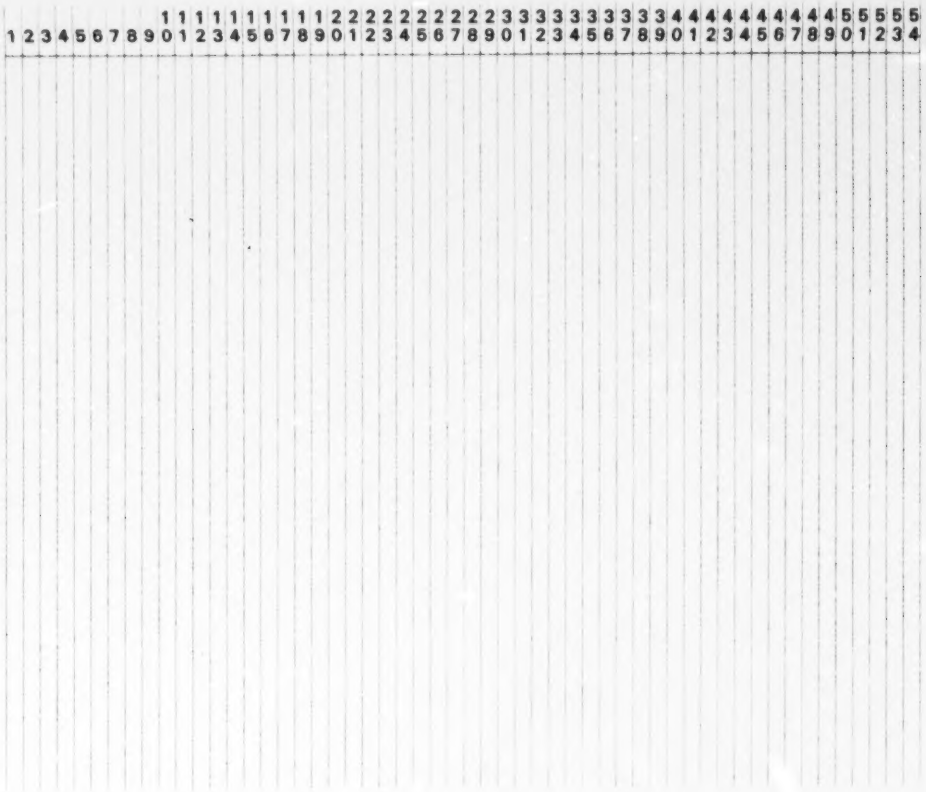

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
Sphagnum (1)
annulatum Warnst. var. porosum (Schlieph. & Warnst. ex Warnst.) Maass & Isov. ex Maass
centrale C. Jens. ex H. Arnell & C. Jens.
compactum DC. ex Lam. & DC.
var. squarrosum (Russ.) Warnst.
cuspidatum Ehrh. ex Hoffm.
fallax (Klinggr.) Klinggr.
var. angustifolium (C. Jens. ex Russ.) Nyh.
fimbriatum Wils. ex Hook. f.
fuscum (Schimp.) Klinggr.
girgensohnii Russ.
lindbergii Schimp. ex Lindb.
magellanicum Brid.
majus (Russ.) C. Jens.
nemoreum Scop.
palustre L.
papillosum Lindb.
pulchrum (Lindb. ex Braithw.) Warnst.
quinquefarium (Lindb. ex Braithw.) Warnst.
rubellum Wils.
russowii Warnst.
squarrosum Crome
subnitens Russ. & Warnst. ex Warnst.
subsecundum Nees ex Sturm
tenerum Sull. & Lesq.
teres (Schimp.) Ångstr. ex C. Hartm.
warnstorfii Russ.
wulfianum Girg.
Splachnum (13)
ampullaceum Hedw.
luteum Hedw.
rubrum Hedw.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
Stokesiella (35)
praelonga (Hedw.) Robins. var. stokesii (Turn.) Crum
Taxiphyllum (39)
deplanatum (Bruch & Schimp. ex Sull.) Fleisch.
Tetradontium (44)
brownianum (Dicks.) Schwaegr.
Tetraphis (44)
geniculata Girg. ex Mildc
pellucida Hedw.
Tetraplodon (13)
angustatus (Hedw.) B.S.G.
mnioides (Hedw.) B.S.G.
Thamnobryum (29)
alleghaniense (C. Müll.) Nieuwl.
Thelia (30)
asprella Sull.
hirtella (Hedw.) Sull.
Thuidium (33)
delicatulum (Hedw.) B.S.G.
var. radicans (Kindb.) Crum, Steere, & Anders.
minutulum (Hedw.) B.S.G.
pygmaeum B.S.G.
recognitum (Hedw.) Lindb.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
Timmia (21)
austriaca Hedw.
megapolitana Hedw.
var. bavarica (Hessl.) Brid.
Tomenthypnum (35)
nitens (Hedw.) Loeske
Tortella (9)
fragilis (Drumm.) Limpr.
humilis (Hedw.) Jenn.
inclinata (Hedw. f.) Limpr.
tortuosa (Hedw.) Limpr.
Tortula (9)
cainii Crum & Anders.
mucronifolia Schwaegr.
muralis Hedw.
papillosa Wils. ex Spruce
ruralis (Hedw.) Gaertn., Meyer, & Scherb.
var. crinita De Not.
Trematodon (6)
ambiguus (Hedw.) Hornsch.
longicollis Michx.
Trichostomum (9)
spirale Grout
tenuirostre (Hook. & Tayl.) Lindb.
Ulota (23)
coarctata (P. Beauv.) Hamm.
crispa (Hedw.) Brid.

	1 2 3 4 5 6 7 8 9	1 1 1 1 1 1 1 1 1 2 3 4 5 6 7 8 9	1 2 2 2 2 2 2 2 2 3 4 5 6 7 8 9	2 3 3 3 3 3 3 3 3 3 4 5 6 7 8 9	3 4 4 4 4 4 4 4 4 4 5 6 7 8 9	0 1 2 3 4	5 5 5 5 5 5 5 5 5 5 1 2 3 4
curvifolia (Wahlenb.) Lilj.							
hutchinsiae (Sm.) Hamm.			x	x	x		x
Weissia **(9)**							
controversa **Hedw.**	x x x x	x x x x	x x x	x	x x x	x	x
Zygodon **(23)**							
viridissimus (Dicks.) Brid. var. *rupestris* Lindb. *ex* C.J. Hartm.						x	x

Additions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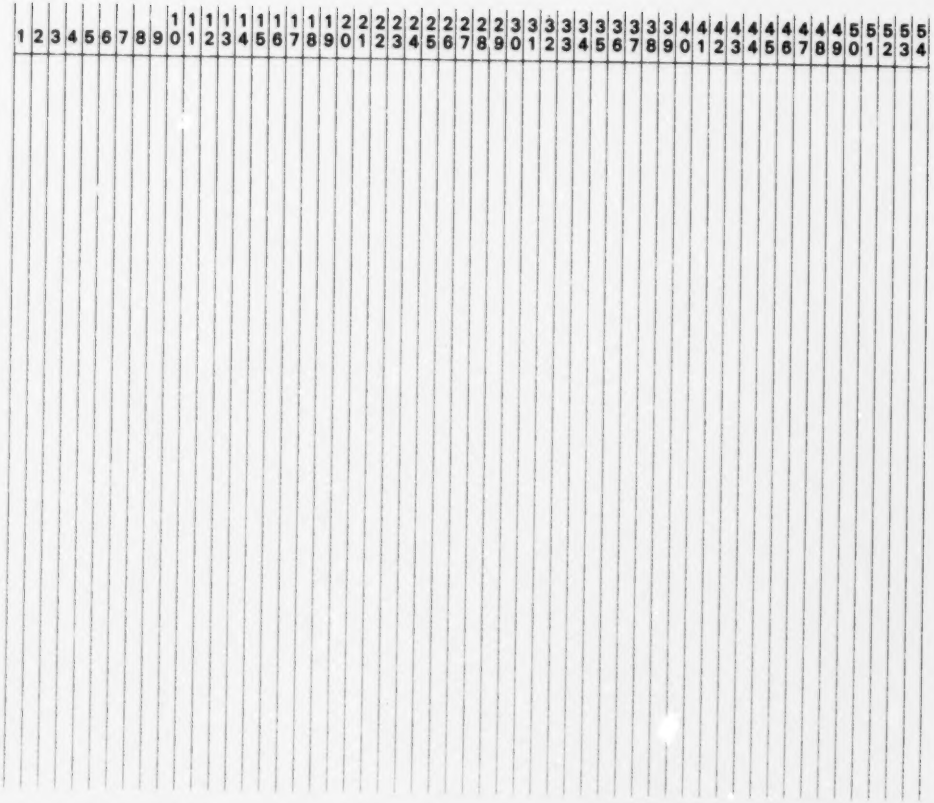
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Literature Reports

The following mosses have been reported for Ontario, but either their taxonomic status is uncertain or no specimens have been seen that would allow us to confirm their presence in the province. The asterisk indicates the taxa that are not accepted or listed as occurring in North America by Crum, Steere, and Anderson (1973). In square brackets, after the name of the person(s) reporting the moss is the year of publication, followed by the page number on which the taxon occurs (see Literature Cited for the complete reference).

Acaulon triquetrum (Spruce) C. Müll. [Williams 1968:283]
Aloina rigida (Hedw.) Limpr. [Macoun and Kindberg 1892:49 (as *Barbula rigida* Schultz)]
**Amblystegium juratzkanum* var. *serotinum* (Lindb.) Wijk & Marg. [Macoun 1890:151 (as *Hypnum (Amblystegium) porphyrhizon* Lindb.)]
**Amblystegium tenuifolium* Kindb. [Kindberg 1890:65]
**Amblystegium varium* var. *oligorrhizon* (B.S.G.) Lindb. [Moxley 1928:198]
Antitrichia curtipendula (Hedw.) Brid. [Macoun and Kindberg 1892:165]
Aulacomnium palustre var. *imbricatum* B.S.G. [Macoun and Kindberg 1892:145]
**Aulacomnium palustre* var. *polycephalum* (Brid.) Hüb. [Macoun and Kindberg 1892:145]
**Barbula convoluta* var. *obtusata* Kindb. *in* Mac. & Kindb. [Macoun and Kindberg 1892:265]
Barbula vinealis Brid. [Macoun and Kindberg 1892:263]
Brachythecium biventrosum (C. Müll.) Jaeg. & Sauerb. [Macoun 1902:290]
Brachythecium collinum (Schleich. *ex* C. Müll.) B.S.G. [Macoun 1902:290 (as *B. hillebrandi* Lesq.)]
Brachythecium frigidum (C. Müll.) Besch. [Moxley 1932:66 (as *B. asperrimum* Mitt.)]
**Brachythecium harpidioides* C. Müll. & Kindb. *in* Mac. & Kindb. [Macoun 1902:288]
Brachythecium oxycladon var. *dentatum* (Lesq. & James) Grout [Moxley 1928:198]
Brachythecium reflexum var. *pacificum* Ren. & Card. *ex* Röll [Moxley 1929:84 (as *B. bestii* Grout)]
**Brachythecium rivulare* var. *obtusulum* Kindb. *in* Mac. & Kindb. [Macoun and Kindberg 1892:201]
Brachythecium rutabulum var. *flavescens* B.S.G. [Macoun and Kindberg 1892:195 (as *B. platycladum* C. Müll. & Kindb. *in* Mac. & Kindb.)]
**Brachythecium starkei* ssp. *oedipodium* (Mitt.) Ren. & Card. (as *B. curtum* (Lindb.) Limpr. in Crum, Steere, and Anderson 1973) [Mitten 1865:32 (as *Hypnum oedipodium* Mitt.)]
**Bryum alpiniforme* Kindb. *in* Mac. & Kindb. [Macoun and Kindberg 1892:271]
**Bryum angustirete* ssp. *parvulum* (Kindb.) Wijk & Marg. [Kindberg 1910:184 (as *B. pendulum* ssp. *nanum* Kindb.)]
**Bryum argenteum* var. *lanatum* (P. Beauv.) Hampe (as var. *argenteum* in Crum, Steere, and Anderson 1973) [Macoun and Kindberg 1892:128]
**Bryum bimum* var. *angustifolium* Kindb. *in* Mac. & Kindb. [Macoun and Kindberg 1892:123]
**Bryum capillare* var. *ferchelii* (Brid.) B.S.G. [Macoun 1902:254 (as *B. ferchelii* Funck)]
Bryum capillare var. *torquescens* (Bruch *ex* De Not.) Husn. [Macoun 1902: 251 (as *B. torquescens* Bruch & Schimp.)]
**Bryum gemmuligerum* Kindb. [Kindberg 1900:87]
Bryum klinggraeffii Schimp. in Klinggr. [Crundwell and Nyholm 1964:612]
Bryum lonchocaulon C. Müll. [Macoun 1902:248 (as *B. leucolomatum* C. Müll. & Kindb.)]

Bryum ruderale Crundw. & Nyh. [Crundwell and Nyholm 1963:95]
Bryum stenotrichum C. Müll. [Crum 1966:110]
Bryum tortifolium Funck *ex* Brid. [Watt 1869:359 (as *B. cyclophyllum* B.S.G.)]
Bryum turbinatum (Hedw.) Turn. [Macoun and Kindberg 1892:133, 271 (as *B. erythrophyllum* Kindb.)]
Bryum violaceum Crundw. & Nyh. [Crundwell and Nyholm 1963:94]
Buxbaumia viridis (DC.) Moug. & Nestl. [Williams 1968:283 (as *B. indusiata* Brid.)]
**Calliergon cordifolium* var. *latifolium* Karcz. [Karczmarz 1971:61]
**Calliergon cordifolium* f. *laxum* (Röll) Podp. [Karczmarz 1971:55]
**Calliergon cuspidatum* f. *turgescens* (Wheldon) Karcz. [Karczmarz 1971:177]
**Calliergon giganteum* var. *hystricosum* Roth & Boch [Karczmarz 1971:86]
**Calliergon giganteum* var. *immersum* Ruthe *ex* Karcz. [Karczmarz 1971:89]
**Calliergon giganteum* f. *decurrens* (Mik.) Karcz. [Karczmarz 1971:84]
**Calliergon stramineum* var. *patens* (Lindb.) Roth [Karczmarz 1971:117]
**Calliergon turgescens* var. *patens* Karcz. [Karczmarz 1971:167]
**Campylium subdecursivulum* (Kindb. *in* Mac. & Kindb.) Kindb. [Macoun and Kindberg 1892:225 (as *Hypnum stellatum* var. *subdecursivulum* Kindb.)]
Campylopus flexuosus (Hedw.) Brid. [Macoun 1890:149 (as *Dicranum palustre* La Pyl.)]
Cratoneuron commutatum (Hedw.) Roth [Macoun and Kindberg 1892:232 (as *Hypnum commutatum* Hedw.)]
**Cratoneuron filicinum* var. *fallax* (Brid.) Roth [Moxley 1932:67 (as *Amblystegium fallax* Milde)]
Cryphaea glomerata B.S.G. *ex* Sull. [Billings 1858:50]
Desmatodon heimii (Hedw.) Mitt. [Grout 1936–39:205 (as *Pottia heimii* (Hedw.) Fürnr.)]
Dichelyma uncinatum Mitt. [Grout 1928–34:260]
Dicranella palustris (Dicks.) Crundw. *ex* Warb. [Macoun 1902:190 (as *D. squarrosa* Starke)]
Dicranella rufescens (With.) Schimp. [Macoun and Kindberg 1892:22, 258]
Dicranella subulata (Hedw.) Schimp. [Macoun 1902:191]
Dicranodontium denudatum (Brid.) Britt. *ex* Williams [Anderson and Zander 1973:35]
Dicranum angustum Lindb. [Wynne and Steere 1943:79 (as *D. laevidens* Williams)]
Dicranum fuscescens var. *congestum* (Brid.) Husn. [Agassiz 1850:169 (as *D. congestum* Brid.)]
**Dicranum howellii* var. *trachyneuron* (Kindb.) Kindb. [Kindberg 1890:61 (as *D. drummondii* var. *trachyneuron* Kindb.)]
Dicranum tauricum Sapeh. [Macoun and Kindberg 1892:24 (as *D. strictum* Schleich.)]
**Dicranum undulatum* ssp. *ontariense* Kindb. [Macoun 1902:202]
Discelium nudum (Dicks.) Brid. [Steere 1958:186]
Distichium hagenii Ryan *ex* Philib. [Wynne and Steere 1943:78]
**Ditrichum flexicaule* f. *brevifolium* (Kindb.) Grout [Grout 1936–39:46]
**Ditrichum pusillum* var. *tortile* (Schrad.) Hag. [Macoun 1902:208 (as *D. tortile* (Gmel.) Lindb.)]
**Drepanocladus aduncus* var. *aquaticus* (Sanio) Ren. [Moxley 1932:67]
**Drepanocladus aduncus* var. *intermedius* (Schimp.) Roth [Moxley 1932:67]
**Drepanocladus aduncus* var. *paternus* (Sanio) Jel. [Moxley 1929:84]
**Drepanocladus aduncus* var. *polycarpus* (Bland. *ex* Voit) Roth f. *gracilescens* (B.S.G.) Mönk. [Crum 1966:117]
**Drepanocladus capillifolius* f. *fallax* Ren. [Moxley 1932:68]

Drepanocladus exannulatus var. *rotae* (De Not.) Loeske (as f. *rotae* (De Not.) Mönk. in Crum, Steere, and Anderson 1973) [Macoun 1902:306 (as *Hypnum longinerve* Kindb.)]
Drepanocladus fluitans var. *uncatus* Crum, Steere, & Anders. [Persson and Sjörs 1960:260 (as *D. schulzei* (Limpr.) Loeske)]
**Drepanocladus jamesii-macounii* (Kindb.) Grout [Kindberg 1910:189 (as *Hypnum jamesii-macounii* Kindb.)]
Drepanocladus lycopodioides (Brid.) Warnst. [Graham 1913:155 (subfossil)]
Drepanocladus procerus (Ren. & H. Arnell *ex* Husn.) Warnst. [Persson and Sjörs 1960:258]
**Drepanocladus tundrae* (H. Arnell) Loeske (as *D. exannulatus* (B.S.G.) Warnst. in Crum, Steere, and Anderson 1973) [Tuomikoski 1949:21]
Drepanocladus uncinatus var. *plumosus* (Schimp.) Warnst. [Macoun and Kindberg 1892:229 (as *Hypnum uncinatum* var. *plumosum* Schimp.)]
Encalypta affinis Hedw. *f.* [Macoun and Kindberg 1892:94 (as *E. macounii* Aust.)]
**Encalypta ciliata* var. *pilifera* Amann [Flowers 1946:84]
Encalypta vulgaris Hedw. [Watt 1869:359]
Entodon challengeri (Par.) Card. [Macoun and Kindberg 1892:178 (as *E. compressum* (Hedw.) C. Müll.)]
Entodon sullivantii (C. Müll.) Lindb. [Macoun 1902:278]
**Eurhynchium pulchellum* var. *diversifolium* (B.S.G.) C. Jens. [Macoun and Kindberg 1892:205 (as *E. diversifolium* (Schimp.) Bruch & Schimp.)]
**Fissidens adiantoides* var. *brachyphyllus* Kindb. *in* Mac. & Kindb. [Macoun and Kindberg 1892:37]
Fissidens garberi Lesq. & James [Macoun 1902:204]
**Fissidens osmundoides* var. *obliquus* Kindb. [Kindberg 1909:42]
Fissidens ravenelii Sull. [Kindberg 1900:83]
Fontinalis flaccida Ren. & Card. [Welch 1960:191]
Fontinalis sullivantii Lindb. [Macoun and Kindberg 1892:159 (as *F. disticha* Hook. & Wils.)]
**Fontinalis squamosa* Hedw. [Macoun 1902:268]
Grimmia donniana Sm. [Wynne 1943:151 (as *G. doniana*)]
Grimmia ovalis (Hedw.) Lindb. [Macoun and Kindberg 1892:70 (as *G. ovata* Web. & Mohr)]
**Grimmia pseudorivularis* Kindb. [Macoun 1902:218]
Haplocladium virginianum (Brid.) Broth. [Macoun and Kindberg 1892:184 (as *Thuidium gracile* var. *lancastriense* Sull. & Lesq.)]
**Hedwigia ciliata* f. *secunda* (B.S.G.) Jones *in* Grout [Macoun and Kindberg 1892:78 (as *H. ciliata* var. *secunda* Schimp.)]
**Hedwigia ciliata* f. *viridis* (B.S.G.) Jones *in* Grout [Macoun and Kindberg 1892:78 (as *H. ciliata* var. *viridis* Schimp. and *H. ciliata* ssp. *subnuda* Kindb.)]
**Homalothecium lutescens* (Hedw.) Robins. [Watt 1869:359 (as *Hypnum lutescens* Hudson)]
Homalothecium nevadense (Lesq.) Ren. & Card. [Macoun 1888:186 (as *H. corticola*)]
Hygrohypnum eumontanum Crum, Steere, & Anders. [Macoun and Kindberg 1892:243 (as *Hypnum montanum* Wils.)]
Hygrohypnum smithii (Sw. *ex* Lilj.) Broth. [Macoun and Kindberg 1892:242 (as *Hypnum arcticum* Sommerf.)]
Hygrohypnum subeugyrium (Ren. & Card.) Broth. [Macoun 1902:310 (as *Hypnum subeugyrium* Ren. & Card.)]
Hypnum bambergeri Schimp. [Persson and Sjörs 1960:262]
**Hypnum cariosum* Roy *in* Aust. [Watt 1869:359 (as *H. cariosum* Sull.)]
Hypnum cupressiforme var. *subjulaceum* Mol. [Moxley 1932:70]

Hypnum dieckii Ren. & Card. *ex* Röll [Macoun and Kindberg 1892:236 (as *H. canadense* Kindb.)]
Hypnum plicatulum (Lindb.) Jaeg. & Sauerb. [Persson and Sjörs 1960:262]
Hypnum subimponens Lesq. [Macoun 1890:152]
**Hypnum subreptile* Par. [Macoun 1902:308 (as *H. reptiliforme* Kindb.)]
**Leptodictyum riparium* var. *longifolium* (Schultz) Warnst. [Moxley 1932:66]
**Leptodictyum riparium* f. *fluitans* (Lesq. & James) Grout [Macoun and Kindberg 1892:222 (as *Amblystegium riparium* var. *fluitans* Lesq. & James)]
Lescuraea patens (Lindb.) H. Arnell & C. Jens. (as *Pseudoleskea patens* (Lindb.) Kindb. in Crum, Steere, and Anderson 1973) [Lesquereux and James 1884:319 (as *Hypnum atrovirens* Dicks.)]
**Leskea polycarpa* var. *paludosa* (Hedw.) Schimp. [Macoun 1902:272–73 (as *L. subobtusifolia* C. Müll. & Kindb.)]
**Leskeella nervosa* var. *flagellifera* (Kindb.) Wijk & Marg. [Kindberg 1890:63 (as *Leskea nervosa* var. *flagellifera* Kindb.)]
Leucodon brachypus Brid. [Macoun and Kindberg 1892:164]
**Meesia uliginosa* var. *minor* (Brid.) Web. & Mohr (as var. *uliginosa* in Crum, Steere, and Anderson 1973) [Macoun and Kindberg 1892:109]
**Mnium lycopodioides* ssp. *inclinatum* (Lindb.) Wijk & Marg. [Barnes 1896: 322 (as *M. inclinatum* Lindb.)]
**Neckera intermedia* Brid. [Agassiz 1850:170 (as *N. intermedia* Hedw.)]
Neckeropsis disticha (Hedw.) Kindb. [Moxley 1932:70 (as *Neckera disticha* (Sw.) Hedw.)]
**Oncophorus wahlenbergii* var. *compactus* (B.S.G.) Braithw. [Macoun and Kindberg 1892:18 (as *Cynodontium wahlenbergii* var. *compactum* (B.S.G.) Mac. & Kindb.)]
Orthotrichum affine Brid. [Sullivant 1856:634]
Orthotrichum alpestre Hornsch. *ex* B.S.G. [Lesquereux and James 1884:169 (as *O. alpestre* var. *majus* Lesq. & James)]
Orthotrichum pusillum Mitt. [Macoun and Kindberg 1892:91 (as *O. psilocarpum* James *ex* Sull.)]
**Orthotrichum rogeri* Brid. [Sullivant 1856:633]
**Orthotrichum strangulatum* f. *lescurii* (Aust.) Vitt [Watt 1869:359 (as *O. lescurii* Aust.)]
Orthotrichum striatum Hedw. [Agassiz 1850:169 (as *O. leiocarpum* Bruch & Schimp.)]
Orthotrichum tenellum Bruch *ex* Brid. [Macoun and Kindberg 1892:90]
**Orthotrichum urnigerum* ssp. *venturii* (De Not.) C. Jens. [Macoun 1902:233 (as *O. venturi* Kindb.)]
Papillaria nigrescens (Hedw.) Jaeg. & Sauerb. [Mitten 1865:45 (as *Trachypus nigrescens (Neckera)* Sw.)]
**Paraleucobryum longifolium* ssp. *serratum* (Kindb.) Podp. [Macoun 1902:193 (as *Dicranum serratum* Kindb.)]
Paraleucobryum longifolium var. *subalpinum* (Milde) Cas.-Gil. [Macoun 1902:200 (as *Dicranum longifolium* var. *subalpinum* Milde)]
Philonotis fontana var. *pumila* (Turn.) Brid. [Macoun 1902:242]
Physcomitrium hookeri Hampe [Grout 1933–40:77]
**Plagiomnium elatum* (B.S.G.) Kop. [Kindberg 1910:183 (as *Mnium seligeri* Jur. & Milde)]
Plagiomnium medium ssp. *curvatulum* (Lindb.) Kop. (as *Mnium medium* var. *integrifolium* Lindb. in Crum, Steere, and Anderson 1973) [Kindberg 1910:184 (as *Mnium medium* ssp. *boreale* Kindb.)]
**Plagiothecium platyphyllum* Mönk. [Tuomikoski, Koponen, and Ahti 1973:250]
Platydictya minutissimum (Sull. & Lesq. *ex* Sull.) Crum [Watt 1869:359 (as *Hypnum minutissimum* Sull. & Lesq.)]

Pogonatum brachyphyllum (Michx.) P. Beauv. [Anderson 1971:108]
Pohlia annotina (Hedw.) Lindb. [Macoun and Kindberg 1892:116 (as *Webera annotina* Schwaegr.)]
Pohlia atropurpurea (Wahlenb.) H. Lindb. [Macoun and Kindberg 1892:125 (as *Bryum atropurpureum* Wahlenb.)]
Pohlia drummondii (C. Müll.) Andr. [Moxley 1932:65 (as *P. commutata* Lindb.)]
Pohlia ludwigii (Spreng. *ex* Schwaegr.) Broth. [Moxley 1937:90]
Pohlia vexans (Limpr.) H. Lindb. [Persson and Sjörs 1960:263]
Pseudoleskeella catenulata (Brid. *ex* Schrad.) Kindb. [Moxley 1930:24 (as *Pseudoleskea catenulata* B. & S.)]
Pterigynandrum filiforme var. *minus* Lesq. & James (as var. *filiforme* in Crum, Steere, and Anderson 1973) [Graham 1913:154]
Pterogonium gracile (Hedw.) Sm. [Grout 1928–34:219]
**Pylaisia polyantha* var. *rupestris* Best *ex* Mac. [Macoun 1902:276]
**Rhabdoweisia fugax* (Hedw.) B.S.G. [Lesquereux and James 1884:59]
**Rhacomitrium heterostichum* var. *obtusum* (Brid.) Delogne [Macoun and Kindberg 1892:74 (as *R. obtusum* (Sm.) Lindb.)]
Rhizomnium andrewsianum (Steere) Kop. (as *Mnium andrewsianum* Steere in Crum, Steere, and Anderson 1973) [Persson and Sjörs 1960:262 (as *Mnium andrewsianum* Steere)]
**Rhynchostegium aneuron* Kindb. [Kindberg 1890:64]
**Rhynchostegium serrulatum* ssp. *eriense* (Kindb.) Kindb. [Macoun 1902:297]
Rhytidiadelphus loreus (Hedw.) Warnst. [Grout 1928–34:117]
Scleropodium cespitans (C. Müll.) L. Koch [Macoun 1902:292 (as *S. colpophyllum* (Sull.) Grout)]
**Seligeria paucifolia* (Dicks.) Carruth. [Moxley 1930:24]
Seligeria pusilla (Hedw.) B.S.G. [Grout 1936–39:50]
Sphagnum annulatum H. Lindb. *ex* Warnst. [Maass 1967:204]
Sphagnum balticum (Russ.) Russ. *ex* C. Jens. [Persson and Sjörs 1960:254]
**Sphagnum compactum* var. *brachycladum* (Röll) Röll [Macoun and Kindberg 1892:7 (as *S. compactum* var. *subsquarrosum* Warnst.)]
**Sphagnum cuspidatum* var. *plumosum* Nees & Hornsch. [Macoun and Kindberg 1892:254]
**Sphagnum cuspidatum* var. *submersum* Schimp. [Macoun 1897:131]
**Sphagnum fimbriatum* var. *tenue* Grav. *ex* Röll [Macoun and Kindberg 1892:1]
**Sphagnum flexuosum* Dozy & Molk. (as *S. recurvum* P. Beauv. in Crum, Steere, and Anderson 1973) [Macoun and Kindberg 1892:5 (as *S. recurvum* var. *amblyphyllum* Russ.)]
**Sphagnum fuscum* f. *fuscescens* (Warnst.) Warnst. [Macoun and Kindberg 1892:2 (as *S. fuscum* var. *fuscescens* Warnst.)]
**Sphagnum fuscum* f. *pallescens* (Warnst.) Warnst. [Macoun and Kindberg 1892:3 (as *S. fuscum* var. *pallescens* Warnst.)]
**Sphagnum fuscum* f. *viride* (Warnst.) Podp. [Macoun 1902:182 (as *S. fuscum* var. *viride* Warnst.)]
**Sphagnum girgensohnii* var. *gracilescens* Grav. *ex* Warnst. f. *squarrosa* Warnst. [Macoun 1902:181]
**Sphagnum girgensohnii* var. *hygrophyllum* Russ. [Macoun and Kindberg 1892:2 (as *S. girgensohnii* var. *hygrophilum* Warnst.)]
**Sphagnum girgensohnii* var. *strictum* (Lindb.) Russ. [Macoun 1902:181 (as *S. girgensohnii* var. *stachyodes* Warnst.)]
Sphagnum imbricatum Hornsch. *ex* Russ. [Watt 1869:359 (as *S. austinii* Sull.)]
**Sphagnum magellanicum* var. *pallescens* (Warnst.) C. Jens. [Macoun and Kindberg 1892:9 (as *S. medium* var. *pallescens* Warnst.)]

**Sphagnum magellanicum* var. *purpurascens* (Russ.) Warnst. [Macoun and Kindberg 1892:9 (as *S. medium* var. *laeve* f. *purpurascens* Russ.)]
**Sphagnum nemoreum* var. *alpinum* (Milde) Wijk & Marg. [Macoun and Kindberg 1892:4 (as *S. acutifolium* var. *pallescens* Warnst.)]
**Sphagnum nemoreum* var. *elegans* (Braithw.) Wijk & Marg. [Macoun and Kindberg 1892:4 (as *S. acutifolium* var. *rubrum* Warnst.)]
**Sphagnum nemoreum* f. *versicolor* (Warnst.) Podp. [Macoun and Kindberg 1892:4 (as *S. acutifolium* var. *versicolor* Warnst.)]
Sphagnum obtusum Warnst. [Macoun 1902:183]
**Sphagnum obtusum* var. *fluitans* Warnst. [Warnstorf 1911:203]
**Sphagnum papillosum* var. *laeve* Warnst. [Macoun and Kindberg 1892:9]
Sphagnum platyphyllum (Lindb. *ex* Braithw.) Sull. *ex* Warnst. [Persson and Sjörs 1960:254]
Sphagnum riparium Ångstr. [Persson and Sjörs 1960:255]
**Sphagnum rubellum* var. *rubrum* (Grav.) Horr. [Macoun 1902:182 (as *S. tenellum* var. *rubrum* Warnst.)]
**Sphagnum russowii* var. *girgensohnioides* Russ. *ex* Warnst. [Macoun 1902:181]
**Sphagnum russowii* var. *poecilum* Russ. *ex* Warnst. [Macoun 1902:181]
**Sphagnum squarrosum* var. *immersum* Beck *ex* Warnst. [Macoun and Kindberg 1892:6 (as *S. squarrosum* var. *spectabile* Russ.)]
Sphagnum subsecundum var. *contortum* (Schultz) Hüb. [Watt 1869:359 (as *S. laricinum* Spruce)]
Sphagnum tenellum Ehrh. *ex* Hoffm. [Persson and Sjörs 1960:255]
**Sphagnum warnstorfii* var. *viride* Russ. *ex* Warnst. [Macoun 1902:182]
**Sphagnum wulfianum* var. *squarrulosum* Russ. [Macoun and Kindberg 1892:7 (as *S. wulfianum* var. *viride* Warnst.)]
Stereophyllum leucostegum (Brid.) Mitt. [Macoun 1890:151 (as *Hypnum (Brachythecium) donnellii* (?) Aust.)]
**Tetraphis pellucida* f. *cuspidata* (Kindb.) Grout [Grout 1936–39:6]
**Thuidium scitum* var. *lonchoneuron* Kindb. *in* Mac. & Kindb. [Macoun and Kindberg 1892:184]
**Thuidium tamariscinum* (Hedw.) B.S.G. [Agassiz 1850:170 (as *Hypnum tamariscinum* Hedw.)]
Tomenthypnum nitens var. *falcifolium* (Ren. *ex* Nichols) Podp. [Persson and Sjörs 1960:264]
Tortula subulata Hedw. [Macoun and Kindberg 1892:58 (as *Barbula angustata* Wils.)]
Trichodon cylindricus (Hedw.) Schimp. [Lesquereux and James 1884:93]
**Ulota crispula* Bruch *ex* Brid. [Macoun and Kindberg 1892:84]
Ulota hutchinsiae var. *rufescens* (Britt.) Dix. [Britton 1894:70 (as *Weissia americana rufescens* Britt.)]
Weissia controversa var. *wolfii* (Lesq. & James) Crum, Steere & Anders. [Kindberg 1910:191 (as *W. wolfii* Lesq. & James)]
**Weissia rutilans* (Hedw.) Lindb. [Macoun 1906:177]
**Weissia rutilans* var. *ganderi* (Jur.) Mac. [Macoun 1902:187]

Synonyms and Excluded Taxa

Acaulon rufescens Jaeg. & Sauerb. = A. *muticum* var. *rufescens*
Amblystegiella adnata (Hedw.) Nichols = *Homomallium adnatum*
Amblystegiella confervoides (Brid.) Loeske = *Platydictya confervoides*
Amblystegiella jungermannioides (Brid.) Giac. = *Platydictya jungermannioides*
Amblystegiella sprucei (Bruch) Loeske = *Platydictya jungermannioides*
Amblystegiella subtilis (Hedw.) Loeske = *Platydictya subtile*
Amblystegium adnatum (Hedw.) Aust. = *Homomallium adnatum*
Amblystegium americanum Grout = *Rhynchostegiella compacta*
Amblystegium compactum (C. Müll.) Aust. = *Rhynchostegiella compacta*
Amblystegium confervoides (Brid.) B.S.G. = *Platydictya confervoides*
Amblystegium curvipes B.S.G. = *Leptodictyum trichopodium* var. *curvipes* (B.S.G.) Broth.—Excluded from Ontario
Amblystegium dissitifolium Kindb. *in* Mac. & Kindb. = *Rhynchostegiella compacta*
Amblystegium filicinum (Hedw.) De Not. = *Cratoneuron filicinum*
Amblystegium filicinum f. *marianopolitana* Dupret *ex* Moxley = *Hygroamblystegium tenax*
Amblystegium fluviatile (Hedw.) B.S.G. = *Hygroamblystegium fluviatile*
Amblystegium irriguum (Hook. & Wils.) B.S.G. = *Hygroamblystegium tenax*
Amblystegium irriguum var. *spinifolium* Schimp. = *Hygroamblystegium tenax*
Amblystegium irriguum f. *marianopolitana* Dupret = *Hygroamblystegium tenax*
Amblystegium kochii B.S.G. = *Leptodictyum trichopodium* var. *kochii*
Amblystegium lescurii (Sull.) Aust. = *Sciaromium lescurii*
Amblystegium noterophilum (Sull. & Lesq.) Holz. = *Hygroamblystegium noterophilum*
Amblystegium orthocladon (P. Beauv.) Lesq. & James = *Hygroamblystegium tenax*
Amblystegium pseudoconfervoides Kindb. = *Platydictya confervoides*
Amblystegium riparium (Hedw.) B.S.G. = *Leptodictyum riparium*
Amblystegium saxatile Schimp. = *Campylium radicale*
Amblystegium sprucei (Bruch) B.S.G. = *Platydictya jungermannioides*
Amblystegium subcompactum C. Müll. & Kindb. *in* Mac. & Kindb. = *Rhynchostegiella compacta*
Amblystegium subtile (Hedw.) B.S.G. = *Platydictya subtile*
Amblystegium vacillans Sull. = *Leptodictyum vacillans*
Amblystegium yuratzkae Schimp. *ex* Mac. & Kindb. *nomen nudum*
Amphoridium lapponicum (Hedw.) Schimp. = *Amphidium lapponicum*
Andreaea petrophila Fürnr. = *A. rupestris*
Anodus donianus (Sm.) B.S.G. = *Seligeria donniana*
Anomobryum filiforme (Dicks.) Solms = *Pohlia filiformis*
Anomodon apiculatus Sull. *in* Gray = *A. rugelii*
Anomodon obtusifolius Bruch & Schimp. = *A. minor*
Anomodon platyphyllus Kindb. = *A. minor*
Anomodon tristis (Ces. *ex* De Not.) Sull. = *Haplohymenium triste*
Aphanorrhegma patens (Hedw.) Lindb. = *Physcomitrella patens*
Arctoa blyttii (B.S.G.) Loeske = *Kiaeria blyttii*
Atrichum crispum var. *molle* (Holz.) Frye = *A. tenellum*
Atrichum macmillani (Holz.) Grout = *A. angustatum*
Atrichum paraphyllium Wareh. = *A. oerstedianum*
Atrichum undulatum var. *altecristatum* Ren. & Card. = *A. altecristatum*
Barbula brevirostris (Hook. & Grev.) Bruch *in* F. Müll. = *Aloina brevirostris*
Barbula caespitosa Schwaegr. = *Tortella humilis*
Barbula inclinatula C. Müll. & Kindb. = *Tortella inclinata*
Barbula macrorrhyncha Kindb. = *Aloina brevirostris*
Barbula mucronifolia (Schwaegr.) Garov. = *Tortula mucronifolia*
Barbula recurvifolia Schimp. = *B. reflexa*

Barbula rigida Schultz = *Aloina rigida* (Hedw.) Limpr.—Specimen from Ontario not seen
Barbula rigidula (Hedw.) Milde = *Didymodon rigidulus*
Barbula ruralis Hedw. = *Tortula ruralis*
Barbula subcarnifolia C. Müll. & Kindb. *in* Mac. & Kindb. = *Desmatodon porteri*
Barbula subgracilis var. *viridior* Kindb. *in* Mac. & Kindb. = *Didymodon rigidulus*
Barbula tortuosa (Hedw.) Web. & Mohr = *Tortella tortuosa*
Bartramia fontana (Hedw.) Turn. = *Philonotis fontana*
Bartramia oederi Brid. = *Plagiopus oederiana*
Bartramia oederiana Turn. = *Plagiopus oederiana*
Brachythecium acuminatum ssp. *cyrtophyllum* (Kindb.) Kindb. *in* Mac. & Kindb. = *B. acuminatum*
Brachythecium acuminatum var. *setosum* (Hedw.) Rau & Herv. = *B. acuminatum*
Brachythecium acutum (Mitt.) Sull. = *B. salebrosum*
Brachythecium cavernosum Kindb. = *B. rutabulum*
Brachythecium cyrtophyllum Kindb. = *B. acuminatum*
Brachythecium flagellare (Hedw.) Jenn. = *B. plumosum*
Brachythecium flexicaule Ren. & Card. = *B. calcareum*
Brachythecium laetum (Brid.) B.S.G. = *B. oxycladon*
Brachythecium populeum var. *ovatum* Grout = *B. populeum*
Brachythecium spurio-acuminatum C. Müll. & Kindb. *in* Mac. & Kindb. = *B. oxycladon*
Brachythecium starkei (Brid.) B.S.G.—Excluded from Ontario
Brachythecium starkei var. *curtum* (Lindb.) Warnst. = *B. curtum*
Brachythecium thedenii Bruch & Schimp.—Excluded from Ontario
Brotherella delicatula (James) Fleisch. = *B. recurvans*
Bryhnia graminicolor var. *holzingeri* (Ren. & Card.) Grout = *B. graminicolor*
Bryum affine Lindb. & H. Arnell = *B. creberrimum*
Bryum angustirete Kindb. *ex* Mac. = *B. algovicum*
Bryum atwateriae C. Müll. = *B. miniatum*
Bryum bimum (Brid.) Turn. = *B. pseudotriquetrum*
Bryum capillare ssp. *heteroneuron* C. Müll. & Kindb. *in* Mac. & Kindb. = *B. capillare*
Bryum capillare var. *heteroneuron* C. Müll. & Kindb. *in* Mac. = *B. capillare*
Bryum cernuum (Hedw.) B.S.G. = *B. uliginosum*
Bryum cuspidatum (Bruch & Schimp.) Schimp. = *B. creberrimum*
Bryum duvalii Voit *ex* Sturm = *B. weigelii*
Bryum hamicuspis Kindb. = *B. creberrimum*
Bryum heteroneuron (C. Müll. & Kindb.) Ren. & Card. = *B. capillare*
Bryum inclinatum (Brid.) Bland. = *B. stenotrichum* C. Müll.—Specimen from Ontario not seen
Bryum intermedium (Brid.) Bland.—Excluded from Ontario
Bryum neodamense Itzigs. *in* C. Müll. = *B. pseudotriquetrum*
Bryum nutans (Hedw.) Turn. = *Pohlia nutans*
Bryum nutans var. *elongatum* Bruch & Schimp. = *Pohlia nutans*(?)
Bryum ontariense Kindb. = *Rhodobryum ontariense*
Bryum ovatum Jur. = *B. pseudotriquetrum*
Bryum pendulum (Hornsch.) Schimp. = *B. algovicum*
Bryum pyriforme Hedw. = *Physcomitrium pyriforme*
Bryum rauei Aust. = *B. muehlenbeckii*
Bryum roseum (Hedw.) Crom. = *Rhodobryum roseum* (Hedw.) Limpr.—Excluded from Ontario. Most collections thus named are *R. ontariense*.
Bryum synoico-caespiticium C. Müll. & Kindb. *in* Mac. = *B. caespiticium*
Buxbaumia subcylindrica Grout = *B. minakatae*

Calliergon cuspidatum (Hedw.) Kindb. = *Calliergonella cuspidata*
Calliergon schreberi (Brid.) Mitt. = *Pleurozium schreberi*
Calliergon turgescens (Schimp.) Kindb. = *Scorpidium turgescens*
Calliergonella schreberi (Bruch & Schimp.) Grout = *Pleurozium schreberi*
Camptothecium nitens (Schreb.) Schimp. = *Tomenthypnum nitens*
Campylium hispidulum var. *sommerfeltii* (Myr.) Lindb. = *C. hispidulum*
Campylium sommerfeltii (Myr.) J. Lange = *C. hispidulum*
Campylium stellatum var. *protensum* (Brid.) Bryhn. = *C. stellatum*
Campylopus viridis Sull. & Lesq. = *Dicranum viride*
Catharinea angustata (Brid.) Brid. = *Atrichum angustatum*
Catharinea crispa James = *Atrichum crispum*
Catharinea undulata Hedw. = *Atrichum undulatum*
Chamberlainia acuminata (Hedw.) Grout = *Brachythecium acuminatum*
Chamberlainia cyrtophylla (Kindb.) Grout = *Brachythecium acuminatum*
Cinclidotus fontinaloides (Hedw.) P. Beauv.—Excluded from Ontario (see Macoun 1900)
Cirriphyllum boscii (Schwaegr.) Grout = *Bryoandersonia illecebra*
Cirriphyllum illecebrum (Hedw.) L. Koch = *Bryoandersonia illecebra*
Climacium americanum ssp. *kindbergii* (Ren. & Card.) Kindb. = *C. americanum* var. *kindbergii*
Climacium kindbergii (Ren. & Card.) Grout = *C. americanum* var. *kindbergii*
Conomitrium julianum (Cand.) Mont. = *Fissidens fontanus*
Cratoneuron falcatum (Brid.) Roth = *C. commutatum* var. *falcatum*
Cylindrothecium aciculare (C. Müll. & Kindb.) Ren. & Card. = *Entodon cladorrhizans*
Cylindrothecium cladorrhizans (Hedw.) Sull. = *Entodon cladorrhizans*
Cylindrothecium macounii (C. Müll. & Kindb.) Ren. & Card. = *Hypnum pratense*
Cynodontium polycarpum (Hedw.) Schimp.—Excluded from Ontario
Cynodontium subalpestre Kindb. *in* Mac. = *C. alpestre*
Cynodontium tenellum (B.S.G.) Limpr. = *C. alpestre*
Cynodontium virens var. *wahlenbergii* (Brid.) Schimp. = *Oncophorus wahlenbergii*
Cynodontium wahlenbergii (Brid.) C. Hartm. = *Oncophorus wahlenbergii*
Desmatodon heimii var. *obtusifolius* (R. Br.) Kuc = *D. heimii* var. *arctica*
Dichelyma capillaceum var. *elongatum* Kindb. *in* Mac. & Kindb. = *D. capillaceum*
Dicranella heteromalla var. *orthocarpa* (Hedw.) Jaeg. & Sauerb. = *D. heteromalla*
Dicranum alatum (Barnes) Card. & Thér. = *D. scoparium*
Dicranum bergeri Bland. = *D. undulatum*
Dicranum canadense Kindb. *in* Mac. = *D. scoparium*
Dicranum condensatum Hedw. = *D. sabuletorum*
Dicranum consobrinum Ren. & Card. = *D. scoparium*
Dicranum crispulum C. Müll. & Kindb. = *D. fuscescens*
Dicranum fuscescens var. *brevirostre* Kindb. *in* Mac. & Kindb. *nomen nudum*
Dicranum glaucum Hedw. = *Leucobryum glaucum*
Dicranum longifolium Ehrh. *ex* Hedw. = *Paraleucobryum longifolium*
Dicranum polycarpum (Hedw.) Web. & Mohr = *Cynodontium polycarpum* (Hedw.) Schimp.—Excluded from Ontario
Dicranum rugosum (Hoffm.) Brid. = *D. polysetum*
Dicranum rugosum var. *rugulosum* Kindb. = *D. undulatum*
Dicranum schraderi Wahlenb. = *D. undulatum*
Dicranum schreberi Hedw. = *Dicranella schreberiana*
Dicranum scopariiforme Kindb. = *D. scoparium*
Dicranum scoparium var. *scopariiforme* (Kindb.) Kindb. = *D. scoparium*
Dicranum stenodictyon Kindb. = *D. undulatum*

Dicranum sulcatum Kindb. = *D. fuscescens*
Dicranum undulatum Ehrh. *ex* Web. & Mohr = *D. polysetum*
Dicranum undulatum Turn. (*sensu* Kindberg) = *D. polysetum*
Dicranum virens Hedw. = *Oncophorus virens*
Dicranum virens var. *wahlenbergii* (Brid.) Hüb. = *Oncophorus wahlenbergii*
Didymodon cylindricus (Brid.) B.S.G. = *Trichostomum tenuirostre*
Didymodon luridus Hornsch. *in* Spreng. = *D. trifarius* (Hedw.) Röhl.—Excluded from Ontario
Didymodon recurvirostris (Hedw.) Jenn. = *Bryoerythrophyllum recurvirostrum*
Didymodon riparius (Aust.) Kindb. = *Hyophila involuta*
Didymodon rubellus B.S.G. = *Bryoerythrophyllum recurvirostrum*
Didymodon trachyneuron Kindb. = *Trichostomum tenuirostre*
Didymodon trifarius (Hedw.) Röhl.—Excluded from Ontario
Ditrichum glaucescens (Hedw.) Hampe = *Saelania glaucescens*
Ditrichum tortile (Schrad.) Brockm. = *D. pusillum* var. *tortile* (Schrad.) Hag.—Specimen from Ontario not seen
Ditrichum tortile ssp. *pusillum* Hedw. = *D. pusillum*
Drepanocladus aduncus var. *capillifolius* (Warnst.) Wynne = *D. capillifolius*
Drepanocladus aduncus var. *typicus* f. *capillifolius* Mönk. = *D. capillifolius*
Drepanocladus fluitans var. *falcatus* (B.S.G.) Roth = *D. fluitans* var. *uncatus*—Specimen from Ontario not seen
Drepanocladus intermedius (Lindb. *ex* C. Hartm.) Warnst. = *D. revolvens*
Drepanocladus revolvens var. *intermedius* (Lindb. *ex* C. Hartm.) Rich. & Wallace = *D. revolvens*
Drepanocladus subpiligerus Ren. *nomen nudum*
Drummondia canadensis Kindb. = *D. prorepens*
Drummondia clavellata Hook. *in* Drumm. = *D. prorepens*
Drummondia clavellata var. *canadensis* Kindb. *in* Mac. & Kindb. = *D. prorepens*
Elodium paludosum Aust. = *Helodium paludosum*
Encalypta contorta Hopp. *ex* Lindb. = *E. streptocarpa*—Excluded from Ontario
Encalypta laciniata Lindb. = *E. ciliata*
Encalypta rhabdocarpa Schwaegr. = *E. rhaptocarpa*
Encalypta streptocarpa Hedw.—Excluded from Ontario. Most collections thus named are *E. procera*.
Entodon acicularis C. Müll. & Kindb. *in* Mac. & Kindb. = *E. cladorrhizans*
Entodon macounii C. Müll. & Kindb. *in* Mac. & Kindb. = *Hypnum pratense*
Entodon repens var. *orthoclados* (Kindb.) Grout = *Platygyrium repens*
Eurhynchium boscii Jaeg.& Sauerb. = *Bryoandersonia illecebra*
Eurhynchium graminicolor (Brid.) Par. = *Bryhnia graminicolor*
Eurhynchium praelongum var. *stokesii* (Turn.) Hobk. = *Stokesiella praelonga* var. *stokesii*
Eurhynchium pseudoserrulatum Kindb. = *Brachythecium starkei* (Brid.) B.S.G. according to Grout (1898); however, Ontario isosyntype is *B. rutabulum*
Eurhynchium rusciforme (Neck.) Milde = *E. riparioides*
Eurhynchium scabridum (Lindb.) Kindb. = *Bryhnia novae-angliae*
Eurhynchium serrulatum (Hedw.) Kindb. = *Rhynchostegium serrulatum*
Eurhynchium serrulatum ssp. *ericense* Kindb. = *Rhynchostegium serrulatum*
Eurhynchium stokesii (Turn.) B.S.G. = *Stokesiella praelonga* var. *stokesii*
Eurhynchium strigosum (Hoffm.) Bruch & Schimp. = *E. pulchellum*
Eurhynchium strigosum var. *robustum* Röll = *E. pulchellum*
Eurhynchium subscabridum Kindb. = *Bryhnia graminicolor*
Eurhynchium substrigosum Kindb. *ex* Mac. = *E. pulchellum*
Eurhynchium sullivantii (Spruce) Jaeg. & Sauerb. = *Bryhnia graminicolor*
Fissidens adianthoides var. *immarginatus* Lindb. *ex* Lesq. & James = *F. adiantoides*

Fissidens adianthoides var. *instatus* Kindb. *nomen nudum*
Fissidens debilis Schwaegr. = *F. fontanus*
Fissidens decipiens De Not. = *F. cristatus*
Fissidens incurvus Starke *ex* Röhl. = *F. viridulus*
Fissidens julianus (Mont.) Schimp. = *F. fontanus*
Fissidens julianus var. *americanus* Kindb. = *F. fontanus*
Fissidens minutulus Sull. = *F. viridulus*
Fissidens pusillus (Wils.) Milde = *F. viridulus*
Fissidens tamarindifolius (Turn.) Brid. = *F. viridulus*
Fontinalis biformis Sull. *in* Gray = *F. sphagnifolia*
Fontinalis gigantea Sull. *in* Sull. & Lesq. = *F. antipyretica* var. *gigantea*
Fontinalis lescurii Sull. = *F. novae-angliae*
Fontinalis nitida Lindb. = *F. duriaei*
Fontinalis novae-angliae ssp. *involuta* Welch *in* Grout = *F. novae-angliae*
Fontinalis novae-angliae var. *cymbifolia* (Aust.) Welch = *F. novae-angliae*
Forsstroemia nitida Lindb. = *Neomacounia nitida*
Georgia cuspidata Kindb. = *Tetraphis pellucida*
Georgia pellucida (Hedw.) Rabenh. = *Tetraphis pellucida*
Grimmia apocarpa var. *conferta* (Funck) Spreng. = *G. apocarpa*
Grimmia apocarpa var. *dupretii* (Thér.) Sayre = *G. alpicola* var. *dupretii*
Grimmia apocarpa var. *gracilis* (Schleich.) Web. & Mohr = *G. apocarpa* var. *stricta*
Grimmia apocarpa var. *rivularis* (Brid.) Web. & Mohr = *G. alpicola* var. *rivularis*
Grimmia apocarpa f. *canadensis* Loeske = *G. apocarpa*
Grimmia apocarpa f. *epilosa* Warnst. = *G. apocarpa*
Grimmia conferta Funck = *G. apocarpa*
Grimmia conferta var. *compacta* Lesq. & James = *G. apocarpa*
Grimmia dupretii Thér. = *G. alpicola* var. *dupretii*
Grimmia gracilis Schleich. *ex* Schwaegr. = *G. apocarpa* var. *stricta*
Grimmia pennsylvanica Schwaegr. *ex* Sull. & Lesq. = *G. pilifera*
Grimmia rivularis Brid. = *G. alpicola* var. *rivularis*
Gymnostomum calcareum Nees & Hornsch.—Excluded from Ontario. Most specimens thus named are *G. aeruginosum*.
Gymnostomum calcareum var. *brevifolium* Schimp. = *G. calcareum*—Excluded from Ontario
Gymnostomum calcareum var. *intermedium* Schimp.—Excluded from Ontario
Gymnostomum curvirostrum (–is) (–e) Hedw. *ex* Brid. = *G. recurvirostrum*
Gymnostomum recurvirostrum var. *scabrum* (Lindb.) Grout = *G. recurvirostrum* var. *latifolium*
Gymnostomum rupestre (–is) Schleich. *ex* Schwaegr. = *G. aeruginosum*
Gymnostomum tenue Schrad. *ex* Hedw. = *Gyroweisia tenuis*
Hedwigia albicans Lindb. = *H. ciliata*
Helodium blandowii var. *helodioides* (Ren. & Card. *ex* Röll) Crum, Steere, & Anders. = *H. blandowii*
Helodium lanatum (Brid.) Broth. = *H. blandowii*
Helodium pratense W. Koch *ex* Moxley = *Hypnum pratense*
Helodium reptile Michx. *ex* Moxley = *Hypnum pallescens*
Heterocladium squarrosulum (Voit) Lindb. = *H. dimorphum*
Heterophyllium haldanianum (Grev.) Kindb. = *Callicladium haldanianum*
Holmgrenia chrysea (Schwaegr.) Lindb. = *Orthothecium chryseum*
Holmgrenia intricata (C. J. Hartm.) Lindb. = *Orthothecium intricatum*
Homalia jamesii Schimp. = *H. trichomanoides*
Homalia macounii C. Müll. & Kindb. *in* Mac. & Kindb. = *H. trichomanoides*
Hygroamblystegium fluviatile var. *orthocladum* (P. Beauv.) Crum, Steere, & Anders. = *H. tenax*

Hygroamblystegium irriguum (Wils.) Loeske = *H. tenax*
Hygroamblystegium irriguum var. *spinifolium* (Schimp.) Grout = *H. tenax*
Hygroamblystegium irriguum f. *marianopolitana* Dupret = *H. tenax*
Hygroamblystegium orthocladon (P. Beauv.) Loeske = *H. tenax*
Hygroamblystegium tenax var. *spinifolium* (Schimp.) Jenn. = *H. tenax*
Hygrohypnum dilatatum (Wils. *ex* Schimp.) Loeske = *H. molle*
Hygrohypnum eugyrium var. *mackayi* (Schimp.) Broth. = *H. eugyrium*
Hygrohypnum palustre (Hedw.) Loeske = *H. luridum*
Hygrohypnum pseudomontanum (Kindb. *ex* Mac. & Kindb.) Grout = *H. luridum*
Hylocomium proliferum (Brid.) Lindb. = *H. splendens*
Hylocomium triquetrum (Hedw.) B.S.G. = *Rhytidiadelphus triquetrus*
Hyophila riparia (Aust.) Fleisch. = *H. involuta*
Hyophila tortula (Schwaegr.) Hampe = *H. involuta*
Hypnum abietinum Hedw. = *Abietinella abietina*
Hypnum acuminatum (Hedw.) P. Beauv. = *Brachythecium acuminatum*
Hypnum acutum Mitt. = *Brachythecium salebrosum*
Hypnum adnatum Hedw. = *Homomallium adnatum*
Hypnum aduncum Hedw. = *Drepanocladus aduncus*
Hypnum aduncum var. *platyphyllum* (Kindb.) Par. = *Drepanocladus aduncus*
Hypnum alleghaniense C. Müll. = *Thamnobryum alleghaniense*
Hypnum americanum Mac. *nomen nudum*
Hypnum arcuatiforme Kindb. *in* Mac. & Kindb. = *H. lindbergii*
Hypnum arcuatum Lindb. = *H. lindbergii*
Hypnum blandowii Web. & Mohr = *Helodium blandowii*
Hypnum bridelianum Crum, Steere, & Anders. = *H. recurvatum*
Hypnum byssirameum C. Müll. & Kindb. *in* Mac. & Kindb. = *Campylium hispidulum*
Hypnum capillifolium Warnst. = *Drepanocladus capillifolius*
Hypnum chrysophyllum Brid. = *Campylium chrysophyllum*
Hypnum compactum (Hook.) C. Müll. = *Rhynchostegiella compacta*
Hypnum confervoides Brid. = *Platydictya confervoides*
Hypnum conflatum C. Müll. & Kindb. *in* Mac. & Kindb. = *Drepanocladus aduncus*
Hypnum cordifolium Hedw. = *Calliergon cordifolium*
Hypnum cossonii Schimp. = *Drepanocladus revolvens*
Hypnum crista-castrensis Hedw. = *Ptilium crista-castrensis*
Hypnum cuspidatum Hedw. = *Calliergonella cuspidata*
Hypnum delicatulum Hedw. = *Thuidium delicatulum*
Hypnum denticulatum Hedw. = *Plagiothecium denticulatum*
Hypnum deplanatum Bruch & Schimp. *ex* Sull. = *Taxiphyllum deplanatum*
Hypnum depressulum C. Müll. = *H. pallescens* var. *protuberans*
Hypnum dilatatum Wils. *ex* Schimp. = *Hygrohypnum molle*
Hypnum eugyrium (B.S.G.) Sull. & Lesq. = *Hygrohypnum eugyrium*
Hypnum exannulatum B.S.G. = *Drepanocladus exannulatus*
Hypnum fastigiatum Brid. = *H. recurvatum*
Hypnum filicinum Hedw. = *Cratoneuron filicinum*
Hypnum flaccum C. Müll. & Kindb. *in* Mac. & Kindb. = *Callicladium haldanianum*
Hypnum fluitans Hedw. = *Drepanocladus fluitans*
Hypnum fluitans var. *conflatum* C. Müll. & Kindb. = *Drepanocladus aduncus*
Hypnum fluviatile Sw. *ex* Hedw. = *Hygroamblystegium fluviatile*
Hypnum giganteum Schimp. = *Calliergon giganteum*
Hypnum gracile Bruch & Schimp. *in* Hook. = *Haplocladium microphyllum*
Hypnum haldanianum Grev. = *Callicladium haldanianum*
Hypnum hamulosiforme Kindb. *nomen nudum*
Hypnum hians Hedw. = *Eurhynchium hians*

Hypnum hispidulum Brid. = *Campylium hispidulum*
Hypnum kneiffii (B.S.G.) Schimp. *ex* Wils. = *Drepanocladus aduncus* var. *kneiffii*
Hypnum kneiffii var. *laxum* Kindb. *in* Mac. & Kindb. *nomen nudum*
Hypnum kneiffii var. *platyphyllum* Kindb. *in* Mac. & Kindb. = *Drepanocladus aduncus*
Hypnum kneiffii var. *rectifolium* Kindb. *in* Mac. & Kindb. *nomen nudum*
Hypnum laetum Brid. = *Brachythecium oxycladon*
Hypnum minutulum Hedw. = *Thuidium minutulum*
Hypnum molluscum Hedw. = *Ctenidium molluscum*
Hypnum nitidulum Wahlenb. = *Isopterygium pulchellum*
Hypnum nitens Hedw. = *Tomenthypnum nitens*
Hypnum novae-angliae Sull. & Lesq. = *Bryhnia novae-angliae*
Hypnum oakesii Sull. *in* Gray = *Hylocomium pyrenaicum*
Hypnum ochraceum Turn. *ex* Wils. = *Hygrohypnum ochraceum*
Hypnum palustre Brid. = *Hygrohypnum luridum*
Hypnum passaicense (Aust.) Lesq. & James = *Isopterygium pulchellum*
Hypnum patientiae Lindb. = *H. lindbergii*
Hypnum patientiae var. *elatum* (Schimp.) Jaeg. & Sauerb. = *H. lindbergii*
Hypnum perichaetiale B.S.G. = *H. pallescens*
Hypnum plumosum Hedw. = *Brachythecium plumosum*
Hypnum polygamum (B.S.G.) Wils. = *Campylium polygamum*
Hypnum populeum Hedw. = *Brachythecium populeum*
Hypnum protuberans Brid. = *H. pallescens* var. *protuberans*
Hypnum pseudodrepanium C. Müll. & Kindb. *in* Mac. & Kindb. = *H. lindbergii*
Hypnum pseudofastigiatum C. Müll. & Kindb. *in* Mac. & Kindb. = *H. cupressiforme*
Hypnum pseudopratense Kindb. *in* Mac. & Kindb. = *H. pratense*
Hypnum recognitum Hedw. = *Thuidium recognitum*
Hypnum recurvans (Michx.) Schwaegr. = *Brotherella recurvans*
Hypnum renauldii Kindb. *in* Mac. & Kindb. = *H. lindbergii*
Hypnum reptile Michx. = *H. pallescens*
Hypnum revolvens Sw. = *Drepanocladus revolvens*
Hypnum richardsonii (Mitt.) Lesq. & James = *Calliergon richardsonii*
Hypnum riparium Hedw. = *Leptodictyum riparium*
Hypnum rivulare (B.S.G.) Bruch *in* Wils. = *Brachythecium rivulare*
Hypnum rugosum Hedw. = *Rhytidium rugosum*
Hypnum rusciforme Weiss *ex* Brid. = *Eurhynchium riparioides*
Hypnum rutabulum Hedw. = *Brachythecium rutabulum*
Hypnum salebrosum Web. & Mohr = *Brachythecium salebrosum*
Hypnum schreberi Brid. = *Pleurozium schreberi*
Hypnum scitum P. Beauv. = *Rauiella scita*
Hypnum scorpioides Hedw. = *Scorpidium scorpioides*
Hypnum sendtneri Schimp. = *Drepanocladus sendtneri*
Hypnum serpens Hedw. = *Amblystegium serpens*
Hypnum serrulatum Hedw. = *Rhynchostegium serrulatum*
Hypnum sommerfeltii Myr. = *Campylium hispidulum*
Hypnum splendens Hedw. = *Hylocomium splendens*
Hypnum starkei Brid. = *Brachythecium starkei* (Brid.) B.S.G.—Excluded from Ontario
Hypnum stellatum Schreb. *ex* Hedw. = *Campylium stellatum*
Hypnum stellatum var. *protensum* (Brid.) Röhl. = *Campylium stellatum*
Hypnum stramineum Dicks. *ex* Brid. = *Calliergon stramineum*
Hypnum strigosum Hoffm. = *Eurhynchium pulchellum*
Hypnum subflaccum C. Müll. & Kindb. *in* Mac. & Kindb. = *H. pratense*
Hypnum subsecundum Kindb. = *Campylium chrysophyllum*

Hypnum subtile (Hedw.) Dicks. = *Platydictya subtile*
Hypnum sullivantiae Schimp. *ex* Sull. = *Plagiothecium cavifolium*
Hypnum sylvaticum Brid. = *Plagiothecium sylvaticum*—Excluded from Ontario
Hypnum trifarium Web. & Mohr = *Calliergon trifarium*
Hypnum triquetrum Hedw. = *Rhytidiadelphus triquetrus*
Hypnum turfaceum Lindb. = *Herzogiella turfacea*
Hypnum turgescens T. Jens. = *Scorpidium turgescens*
Hypnum uncinatum Hedw. = *Drepanocladus uncinatus*
Hypnum unicostatum C. Müll. & Kindb. *in* Mac. & Kindb. = *Campylium chrysophyllum*
Hypnum varium (Hedw.) P. Beauv. = *Amblystegium varium*
Hypnum vernicosum Lindb. *ex* C. Hartm. = *Drepanocladus vernicosus*
Hypnum zuratzkae Mac. *nomen nudum*
Isopterygium borrerianum (C. Müll.) Lindb. = *I. elegans*
Isopterygium muellerianum (Schimp.) Jaeg. & Sauerb. = *Isopterygiopsis muelleriana*
Isopterygium striatellum (Brid.) Loeske = *Herzogiella striatella*
Isopterygium subfalcatum (Aust.) Jaeg. & Sauerb. = *I. distichaceum*
Isopterygium turfaceum (Lindb.) Lindb. = *Herzogiella turfacea*
Leptodictyum trichopodium var. *curvipes* (B.S.G.) Broth.—Excluded from Ontario
Leptodon nitidus Lindb. = *Neomacounia nitida*
Leptodon trichomitrion (Hedw.) Mohr = *Forsstroemia trichomitria*
Leptodontium canadense Kindb. *in* Mac. & Kindb. = *Hyophila involuta*
Leptotrichum glaucescens (Hedw.) Hampe = *Saelania glaucescens*
Leptotrichum pallidum (Hedw.) Hampe *in* C. Müll. = *Ditrichum pallidum*
Leptotrichum tortile (Schrad.) Hampe *in* C. Müll. = *Ditrichum pusillum* var. *tortile* (Schrad.) Hag.—Specimen from Ontario not seen
Leskea cyrtophylla Kindb. *in* Mac. & Kindb. = *Pseudoleskeella tectorum*
Leskea intermedia Best *in* Mac. *nomen nudum*
Leskea nervosa (Brid.) Myr. = *Leskeella nervosa*
Leskea tectorum (Funck *ex* Brid.) Lindb. = *Pseudoleskeella tectorum*
Leskea williamsii Best = *Pseudoleskeella williamsii*
Leskea wollei Aust. = *Pseudoleskeella tectorum*
Leucobryum vulgare Hampe = *L. glaucum*
Leucodon sciuroides (Hedw.) Schwaegr.—Excluded from Ontario. Most collections thus named are *L. brachypus* var. *andrewsianus*
Lindbergia brachyptera var. *austinii* (Sull.) Grout = *L. brachyptera*
Loeskeobryum brevirostre (Brid.) Fleisch. = *Hylocomium brevirostre*
Meesia trichodes Spruce = *M. uliginosa*
Meesia trifaria Crum, Steere, & Anders. = *M. triquetra*
Meesia tristicha B.S.G. = *M. triquetra*
Mielichhoferia mielichhoferiana Loeske = *M. mielichhoferi*
Mniobryum albicans (Wahlenb.) Limpr. = *Pohlia wahlenbergii*
Mnium affine Bland. *ex* Funck = *Plagiomnium affine* (Funck) Kop.—Excluded from Ontario. Most collections thus named are either *P. ciliare* or *P. ellipticum*
Mnium affine var. *ciliare* C. Müll. = *Plagiomnium ciliare*
Mnium affine var. *rugicum* (Laur.) B.S.G. = *Plagiomnium ellipticum*
Mnium ciliare (C. Müll.) Schimp. = *Plagiomnium ciliare*
Mnium cinclidioides Hüb. = *Pseudobryum cinclidioides*
Mnium cuspidatum Hedw. = *Plagiomnium cuspidatum*
Mnium drummondii Bruch & Schimp. = *Plagiomnium drummondii*
Mnium macrociliare C. Müll. & Kindb. *in* Mac. & Kindb. = *Plagiomnium ciliare*
Mnium medium B.S.G. = *Plagiomnium medium*

Mnium medium ssp. *boreale* Kindb. = *Plagiomnium medium* ssp. *curvatulum* (Lindb.) Kop.—Specimen from Ontario not seen
Mnium niagarae Kindb. *in* Mac. & Kindb. = *M. marginatum*
Mnium orthorrhynchum Brid. = *M. thomsonii*
Mnium orthorrhynchum var. *tenellum* Bruch & Schimp. = *M. lycopodioides* ssp. *inclinatum* (Lindb.) Wijk & Marg.—Specimen from Ontario not seen
Mnium pseudopunctatum Bruch & Schimp. = *Rhizomnium pseudopunctatum*
Mnium punctatum Hedw. = *Rhizomnium punctatum*
Mnium punctatum var. *elatum* Schimp. = *Rhizomnium magnifolium*. Most specimens thus named, however, are *Rhizomnium appalachianum*.
Mnium riparium Mitt. = *M. lycopodioides*
Mnium rostratum Schrad. = *Plagiomnium rostratum*
Mnium rugicum Laur. = *Plagiomnium ellipticum*
Mnium seligeri Jur. *in* Milde = *Plagiomnium elatum* (B.S.G.) Kop.—Excluded from Ontario
Mnium serratum Schrad. *ex* Brid. = *M. marginatum*
Mnium subglobosum B.S.G. = *Rhizomnium pseudopunctatum*
Myurella careyana Sull. = *M. sibirica*
Myurella gracilis Lindb. = *M. sibirica*
Neckera oligocarpa Bruch = *N. pennata* var. *tenera*
Neckera pennata var. *oligocarpa* (Bruch) Grout = *N. pennata* var. *tenera*
Omalia trichomanoides (Brid.) B.S.G. = *Homalia trichomanoides*
Oncophorus gracilescens (Web. & Mohr) Lindb. = *Cynodontium gracilescens* (Web. & Mohr) Schimp.—Excluded from Ontario
Oncophorus polycarpus (Hedw.) Brid. = *Cynodontium polycarpum* (Hedw.) Schimp.—Excluded from Ontario
Oncophorus polycarpus var. *strumiferus* (De Not.) Grout = *Cynodontium strumiferum*
Oncophorus tenellus (B.S.G.) Williams = *Cynodontium alpestre*
Oreoweisia serrulata (Funck) De Not.—Excluded from Ontario. Most collections thus named are *Dichodontium pellucidum*
Orthodicranum flagellare (Hedw.) Loeske = *Dicranum flagellare*
Orthotrichum brachytrichum Schimp. *ex* Lesq. & James = *O. pumilum*
Orthotrichum canadense Bruch & Schimp. = *O. anomalum*
Orthotrichum connectens Kindb. *ex* Mac. = *Ulota crispa*
Orthotrichum cupulatum var. *nudum* (Dicks.) Braithw. = *O. cupulatum* var. *riparium* Hüb.—Excluded from Ontario
Orthotrichum hutchinsiae Sm. = *Ulota hutchinsiae*
Orthotrichum ludwigii Brid. = *Ulota coarctata*
Orthotrichum microblepharum f. *rubrum* Grout = *O. sordidum*
Orthotrichum nudum Dicks.—Excluded from Ontario. Collections thus named are probably *O. cupulatum*.
Orthotrichum nudum var. *rudolphianum* (Lehm.) Husn. = *O. cupulatum*
Orthotrichum pallens Bruch *ex* Brid.—Excluded from Ontario
Orthotrichum porteri Sull. & Lesq. *ex* Aust. = *O. strangulatum*
Orthotrichum psilothecium C. Müll. & Kindb. *in* Mac. & Kindb. = *O. speciosum* var. *elegans*
Orthotrichum rogeri Brid.—Excluded from Ontario
Orthotrichum schimperi Hamm. = *O. pumilum*
Oxyrrhynchium riparioides (Hedw.) Jenn. = *Eurhynchium riparioides*
Phascum cuspidatum var. *americanum* Ren. & Card. *ex* Card. & Thér. = *P. cuspidatum*
Philonotis caespitosa Jur. = *P. fontana* var. *caespitosa*
Physcomitrium acuminatum B.S.G. = *P. eurystomum* Sendtn. f. *acuminatum* Loeske—Excluded from Ontario
Physcomitrium platyphyllum Kindb. *in* Mac. & Kindb. = *P. pyriforme*
Physcomitrium strangulatum Kindb. = *P. pyriforme*

Physcomitrium turbinatum (Michx.) Britt. = *P. pyriforme*
Plagiomnium rugicum (Laur.) Kop. = *P. ellipticum*
Plagiothecium aciculari-pungens C. Müll. & Kindb. *in* Mac. & Kindb. = *P. cavifolium*
Plagiothecium brevipungens Kindb. *in* Mac. & Kindb. = *Callicladium haldanianum*
Plagiothecium decursivifolium Kindb. *in* Mac. & Kindb. = *P. laetum*
Plagiothecium denticulatum var. *laetum* (B.S.G.) Lindb. = *P. laetum*
Plagiothecium deplanatum (Bruch & Schimp. *ex* Sull.) Spruce = *Taxiphyllum deplanatum*
Plagiothecium elegans (Brid.) Schimp. = *Isopterygium elegans*
Plagiothecium membranosum Kindb. *in* Mac. & Kindb. = *Hypnum* sp.
Plagiothecium muehlenbeckii B.S.G. = *Herzogiella striatella*
Plagiothecium muellerianum Schimp. = *Isopterygiopsis muelleriana*
Plagiothecium passaicense Aust. = *Isopterygium pulchellum*
Plagiothecium pulchellum (Hedw.) B.S.G. = *Isopterygium pulchellum*
Plagiothecium pulchellum var. *nitidulum* (Wahlenb.) Rau & Herv. = *Isopterygium pulchellum*
Plagiothecium roeseanum B.S.G. = *P. cavifolium*
Plagiothecium ruthei Limpr. = *P. denticulatum*
Plagiothecium striatellum (Brid.) Lindb. = *Herzogiella striatella*
Plagiothecium subfalcatum Aust. = *Isopterygium distichaceum*
Plagiothecium sullivantiae (Sull.) Schimp. *ex* Jaeg. & Sauerb. = *P. cavifolium*
Plagiothecium sylvaticum (Brid.) B.S.G.—Excluded from Ontario
Plagiothecium sylvaticum var. *roeseanum* (B.S.G.) Lindb. = *P. cavifolium*
Plagiothecium turfaceum (Lindb.) Lindb. = *Herzogiella turfacea*
Platygyrium repens var. *orthoclados* Kindb. = *P. repens*
Pogonatum brevicaule P. Beauv. = *P. pensilvanicum*
Pohlia acuminata Hoppe & Hornsch. = *P. elongata*
Pohlia albicans Lindb. = *P. wahlenbergii*
Pohlia annotina var. *loeskei* Crum, Steere, & Anders. = *P. annotina* var. *decipiens*
Pohlia delicatula (Hedw.) Grout = *P. carnea*
Polytrichum affine Funck = *P. strictum*
Polytrichum canadense Kindb. = *P. commune*
Polytrichum commune var. *canadense* Kindb. *in* Mac. & Kindb. = *P. commune*
Polytrichum formosum var. *aurantiacum* (Hoppe *ex* Funck) C.J. Hartm. = *P. longisetum*
Polytrichum gracile Sm. = *P. longisetum*
Polytrichum juniperinum var. *alpestre* B.S.G. = *P. strictum*
Polytrichum juniperinum var. *gracilius* Wahlenb. = *P. strictum*
Porotrichum alleghaniense (C. Müll.) Grout = *Thamnobryum alleghaniense*
Pottia heimii var. *arctica* Lindb. = *Desmatodon heimii* var. *arctica*
Pottia heimii var. *obtusifolia* (R. Br.) Hag. = *Desmatodon heimii* var. *arctica*
Pottia intermedia (Turn.) Fürnr. = *P. truncata*
Pottia truncata var. *major* (Web. & Mohr) B.S.G. = *P. truncata*
Pottia truncatula Warnst. = *P. truncata*
Pterogonium brachypterum Mitt. = *Lindbergia brachyptera*
Pylaisia intricata (Hedw.) Schimp. = *Pylaisiella intricata*
Pylaisia filari-acuminata C. Müll. & Kindb. *in* Mac. = *Pylaisiella polyantha*
Pylaisia ontariensis C. Müll. & Kindb. *in* Mac. & Kindb. = *Pylaisiella polyantha*
Pylaisia polyantha B.S.G. = *Pylaisiella polyantha*
Pylaisia polyantha var. *pseudoplatygyria* (Kindb. *in* Mac. & Kindb.) Grout = *Pylaisiella polyantha*
Pylaisia pseudoplatygyrium Kindb. *in* Mac. & Kindb. = *Pylaisiella polyantha*

Pylaisia schimperi Card. = *Pylaisiella selwynii*
Pylaisia selwynii Kindb. = *Pylaisiella selwynii*
Pylaisia subdenticulata B.S.G. = *Pylaisiella polyantha*
Pylaisia velutina B.S.G. = *Pylaisiella intricata*
Pylaisiella polyantha var. *pseudoplatygyria* (Kindb.) Grout = *P. polyantha*
Rauia scita (P. Beauv.) Aust. = *Rauiella scita*
Rhabdoweisia denticulata (Brid.) B.S.G. = *R. crispata*
Rhacomitrium heterostichum var. *ramulosum* (Lindb.) G. Jones = *R. heterostichum* var. *microcarpon*
Rhacomitrium microcarpon (Hedw.) Brid. = *R. heterostichum* var. *microcarpon*
Rhacomitrium patens (Hedw.) Hüb.—Excluded from Ontario. Reported by Soper and Maycock (1963:189), but voucher specimen in CANM is *Grimmia* sp.
Rhaphidostegium laxepatulum (Lesq. & James) Ren. & Card. = *Brotherella recurvans*
Rhaphidostegium recurvans (Michx.) Jaeg. & Sauerb. = *Brotherella recurvans*
Rhaphidostegium subadnatum C. Müll. & Kindb. *in* Mac. & Kindb. = *Hypnum pallescens*
Rhaphidostegium whitei Kindb. = *Brotherella recurvans*
Rhizomnium perssonii Kop. = *R. magnifolium*
Rhodobryum roseum (Hedw.) Limpr.—Excluded from Ontario. Most collections thus named are *R. ontariense*.
Rhynchostegium deplanatum (Bruch & Schimp. *ex* Sull.) Kindb. *in* Mac. & Kindb. = *Taxiphyllum deplanatum*
Rhynchostegium pseudo-serrulatum (Kindb.) Kindb. = *Brachythecium starkei* (Brid.) B.S.G.—Excluded from Ontario
Rhynchostegium rusciforme B.S.G. = *Eurhynchium riparioides*
Rhytidiadelphus squarrosus (Hedw.) Warnst.—Excluded from Ontario. Most collections thus named are *R. subpinnatus*.
Schistidium agassizii Sull. & Lesq. *ex* Sull. = *Grimmia agassizii*
Schistostega osmundacea Mohr = *S. pennata*
Seligeria donnii Lindb. = *S. donniana*
Sematophyllum recurvans (Rich.) Britt. = *Brotherella recurvans*
Sharpiella striatella (Brid.) Iwats. = *Herzogiella striatella*
Sharpiella turfacea (Lindb.) Iwats. = *Herzogiella turfacea*
Sphagnum acutifolium Schrad. = *S. nemoreum*
Sphagnum angustifolium (Russ.) C. Jens. = *S. fallax* var. *angustifolium*
Sphagnum apiculatum H. Lindb. *in* Bauer = *S. fallax*
Sphagnum capillaceum (Weiss) Schrank = *S. nemoreum*
Sphagnum capillaceum var. *tenellum* (Schimp.) Andr. = *S. rubellum*
Sphagnum capillifolium (Ehrh.) Hedw. = *S. nemoreum*
Sphagnum cymbifolium (Ehrh.) Hedw. = *S. palustre*
Sphagnum cymbifolium var. *laeve* Warnst. = *S. palustre*
Sphagnum dusenii C. Jens. *ex* Russ. = *S. majus*
Sphagnum intermedium Hoffm. = *S. nemoreum*
Sphagnum jensenii H. Lindb. = *S. annulatum* var. *porosum*
Sphagnum jensenii var. *annulatum* (H. Lindb. *ex* Warnst.) Warnst. = *S. annulatum* H. Lindb. *ex* Warnst.—Specimen from Ontario not seen
Sphagnum papillosum var. *intermedium* Warnst. = *S. centrale*
Sphagnum plumulosum Röll = *S. subnitens*
Sphagnum recurvum P. Beauv.—Excluded from Ontario. Most collections thus named are *S. fallax*.
Sphagnum recurvum var. *mucronatum* (Russ.) Warnst. = *S. fallax*
Sphagnum recurvum var. *parvifolium* Sendtn. *ex* Warnst. = *S. fallax* var. *angustifolium*
Sphagnum recurvum var. *pulchrum* (Lindb.) Warnst. = *S. pulchrum*
Sphagnum recurvum var. *tenue* Klinggr. = *S. fallax* var. *angustifolium*

Sphagnum robustum (Russ.) Röll = *S. russowii*
Sphagnum squarrosum var. *semisquarrosum* Russ. *ex* Warnst. = *S. squarrosum*
Sphagnum squarrosum var. *speciosum* Russ. *in* Mac. & Kindb. *nomen nudum*
Sphagnum subbicolor Hampe = *S. centrale*
Sphagnum tenellum var. *rubellum* (Wils.) Klinggr. = *S. rubellum*
Sphagnum tenellum var. *rubrum* Grav. *ex* Warnst. = *S. rubellum* var. *rubrum* (Grav.) Horr.—Specimen from Ontario not seen
Sphagnum teres var. *squarrosulum* (Schimp.) Warnst. = *S. teres*
Sphagnum warnstorfianum Du Rietz = *S. warnstorfii*
Sphagnum wulfianum var. *macrocladum* Warnst. *nomen nudum*
Sphagnum wulfii Girg. = *S. wulfianum*
Swartzia montana Lindb. = *Distichium capillaceum*
Thamnium alleghaniense (C. Müll.) Jaeg. & Sauerb. = *Thamnobryum alleghaniense*
Thamnium pseudoneckeroides Kindb. = *Thamnobryum alleghaniense*
Thelia compacta Kindb. = *T. hirtella*
Thuidium abietinum (Hedw.) B.S.G. = *Abietinella abietina*
Thuidium blandowii (Web. & Mohr) B.S.G. = *Helodium blandowii*
Thuidium gracile B.S.G. = *Haplocladium microphyllum*
Thuidium lignicola Kindb. = *Haplocladium microphyllum*
Thuidium microphyllum (Hedw.) Best = *Haplocladium microphyllum*
Thuidium microphyllum var. *lignicolum* (Kindb.) Best = *Haplocladium microphyllum*
Thuidium philibertii Limpr. = *T. delicatulum* var. *radicans*
Thuidium pseudoabietinum Kindb. = *Helodium blandowii*
Thuidium scitum (P. Beauv.) Aust. = *Rauiella scita*
Thuidium tamariscinum (Hedw.) B.S.G.—Excluded from Ontario
Timmia bavarica Hessl. = *T. megapolitana* var. *bavarica*
Timmia megapolitana f. *cucullata* (Rich.) Grout = *T. megapolitana*
Tortella caespitosa (Schwaegr.) Limpr. = *T. humilis*
Tortula intermedia (Brid.) Berk. = *T. ruralis* var. *crinita*
Trichostomum cylindricum (Bruch) C. Müll. = *T. tenuirostre*
Trichostomum glaucescens Hedw. = *Saelania glaucescens*
Trichostomum tophaceum Brid. = *Didymodon tophaceus*
Trichostomum vaginans Sull. = *Ditrichum lineare*
Ulota americana (P. Beauv.)Limpr. = *U. hutchinsiae*
Ulota bruchii Hornsch. *ex* Brid—Excluded from Ontario
Ulota cirrata Grout = *U. curvifolia*
Ulota connectens (Kindb.) Kindb. = *U. crispa*
Ulota crispa var. *crispula* Hamm. = *U. crispa*
Ulota crispa var. *intermedia* (Schimp.) Card.—Excluded from Ontario
Ulota intermedia Schimp. = *U. crispa* var. *intermedia* (Schimp.)Card.—Excluded from Ontario
Ulota ludwigii (Brid.) Brid. = *U. coarctata*
Webera albicans Schimp. = *Pohlia wahlenbergii*
Webera cruda (Hedw.) Fürnr. = *Pohlia cruda*
Webera nutans Hedw. = *Pohlia nutans*
Webera sessilis Lindb. = *Diphyscium foliosum*
Weissia curvifolia (Wahlenb.) Lindb. = *Ulota curvifolia*
Weissia muhlenbergiana (Sw.) Reese and Lemmon = *Astomum muhlenbergianum*
Weissia pusilla Kindb. = *Gymnostomum calcareum* Nees and Hornsch.—Excluded from Ontario
Weissia viridula Hedw. *ex* Brid. = *W. controversa*
Weissia wolfii Lesq. & James = *W. controversa*

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